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GenCore version 4.5
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OM protein - protein search, using sw model

Run on: October 25, 2001, 08:56:07 ; Search time 12.68 Seconds

(without alignments)
35.120 Million cell updates/sec

Title: US-09-576-724-2

Perfect score: 72

Sequence: 1 CITOYQRESQAVY 13

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 93435 seqs, 34255486 residues

Total number of hits satisfying chosen parameters: 93435

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database: SwissProt_39.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	72	100.0	256	1	P52113 capra hircu
2	72	100.0	256	1	P47812 odocoileus
3	72	100.0	256	1	P23907 ovis aries
4	72	100.0	256	1	P01880 bos taurus
5	72	100.0	256	1	P10279 bos taurus
6	72	100.0	256	1	P40246 atelapha geof
7	69	95.8	238	1	P05270 theopithec
8	69	95.8	232	1	P51446 atelapha panl
9	69	95.8	252	1	P40249 cebus apell
10	69	95.8	253	1	P40252 gorilla gor
11	69	95.8	253	1	P40256 homo sapien
12	69	95.8	253	1	P40253 pan troglod
13	69	95.8	253	1	P40256 pongo pygma
14	69	95.8	255	1	P40501 canis famill
15	69	95.8	256	1	P79142 cervus elap
16	69	95.8	256	1	P40243 tragelaphus
17	69	95.8	254	1	P40242 tragelaphus
18	68	94.4	254	1	P06056 cricetus
19	68	94.4	254	1	P06048 cricetus
20	68	94.4	254	1	P04925 mus musculu
21	68	94.4	254	1	P13852 ratius norv
22	68	94.4	257	1	P40244 mustela vis
23	66	91.7	238	1	P095145 cercocebus
24	66	91.7	239	1	P40245 aotus trivi
25	66	91.7	241	1	P40248 callicebus
26	66	91.7	241	1	P40255 mandillius
27	66	91.7	245	1	P40250 ceropithec
28	66	91.7	246	1	P095112 ceropithec
29	66	91.7	246	1	P40241 ceropithec
30	66	91.7	246	1	P095116 ceropithec
31	66	91.7	252	1	P40247 callithrix
32	66	91.7	253	1	P40251 colobus gue
33	66	91.7	253	1	P40254 macaca fasc

ALIGNMENTS

RESULT ID	PRIO_CAPHI	STANDARD	PRT	256 AA.
AC	P52113			
DT	01-OCT-1996 (Rel. 34, Created)			
DT	01-OCT-1996 (Rel. 34, Last sequence update)			
DT	15-DEC-1998 (Rel. 37, Last annotation update)			
DE	MAJOR PRION PROTEIN PRECURSOR (PRP).			
GN	PRNP OR PRP.			
OS	Capra hircus (Goat).			
OC	Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;			
OC	Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;			
OC	Bovidae; Caprinae; Capra.			
OX	NCBI_TaxID=9925;			
RN	[1]			
RP	SEQUENCE FROM N.A.			
RC	STRAIN-ANGLO-NUBIAN; TISSUE-Peripheral blood lymphocytes;			
RA	Martin T.C., Hughes S.V., Hughes K.O., Dawson M.;			
RL	Submitted (SEP-1993) to the EMBL/GenBank/DBJ databases.			
RN	[2]			
RP	SEQUENCE FROM N.A. AND VARIANT MET-142.			
RC	STRAIN-ANGLO-NUBIAN;			
RX	MEDLINE=97081203; PubMed=8922485;			
RA	Goldmann W., Martin T., Foster J., Hughes S., Smith G., Hughes K.,			
RA	Dawson M., Hunter N.;			
RT	"Novel polymorphisms in the caprine PrP gene: a codon 142 mutation			
RT	associated with scrapie incubation period.";			
RL	J. Gen. Virol. 77:2885-2891(1996).			
RN	[3]			
RP	ERRATUM.			
RA	Goldmann W., Martin T., Foster J., Hughes S., Smith G., Hughes K.,			
RA	Dawson M., Hunter N.;			
RL	J. Gen. Virol. 78:697-697(1997).			
RN	[4]			
RP	SEQUENCE FROM N.A.			
RC	STRAIN-AFRICAN DWARF; TISSUE-Blood;			
RX	MEDLINE=96356540; PubMed=8746958;			
RA	Obermaier G., Kretschmar H.A., Hafner A., Heuback D., Dahne E.;			
RT	"Spongiform central nervous system myelinopathy in African dwarf			
RT	goats.";			
RL	J. Comp. Pathol. 113:357-372(1995).			
CC	-1- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE			
CC	HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.			
CC	-1- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED			
CC	"RODS".			
CC	-1- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.			
CC	-1- DISEASE: POLYMORPHISM AT POSITION 171 MAY BE RELATED TO THE			
CC	ALLELES OF SCRAPIE INCUBATION-CONTROL (SIC) GENE IN THIS SPECIES.			
CC	-1- DISEASE: FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND ANIMALS			
CC	INFECTED WITH DEGENERATIVE NEUROLOGICAL DISEASES SUCH AS FURU,			
CC	CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMAN-STRAUSSLER SYNDROME			
CC	(GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),			
CC	TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.			
CC	-1- SIMILARITY: BELONGS TO THE PRION FAMILY.			
CC	-----			
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34	66	91.7	253	1	PRIO_PREFER	P40257 presbyt
35	66	91.7	260	1	PRIO_SAISC	P40258 saimiri
36	65	90.3	256	1	PRIO_FELCA	O18754 felis f
37	64	88.9	254	1	PRIO_MESAU	P04273 mesocricet
38	64	88.9	257	1	PRIO_MUSPE	P22114 mustela put
39	59	81.9	252	1	PRIO_RABIT	O95211 oryctolagus
40	57	79.2	255	1	PRIO_CAMDR	P79141 camelus cam
41	53	73.6	257	1	PRIO_PIG	P49927 sus scrofa
42	43	59.7	259	1	PRIO_TRIUV	P51760 trichosurus
43	39	54.2	1030	1	SPAB_BACSU	P39774 bacillus st
44	38	52.8	122	1	SSB_BPBO3	Q37885 bacterioph
45	38	52.8	703	1	POP2_SCHPO	O14170 hirsuti

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CC	or send an email to license@isb-sib.ch).
CC	-----
DR	*EMBL: X74758: CAA52774.1; -;
DR	EMBL: X91999: CAA63050.1; -;
DR	EMBL: S82626: AAD14409.1; -;
DR	HSSP: P04925: IAG2.
DR	InterPro: IPR000817; -;
DR	Pfam: PF00377: prion.1.
DR	PRINTS: PR00341: PRION.
DR	PROSITE: PS00291: PRION_1; 1.
DR	PROSITE: PS00706: PRION_2; 1.
DR	Prion; Brain; Glycoprotein; GPI-anchor; Repeat; signal.
KW	SIGNAL
FT	CHAIN
FT	1 24
FT	CARBOHYD 184 184
FT	CARBOHYD 200 200
FT	DISULFID 182 217
FT	DOMAIN 54 95
FT	REPEAT 54 62
FT	REPEAT 63 70
FT	REPEAT 71 78
FT	REPEAT 79 86
FT	REPEAT 87 95
FT	VARIANT 142 142
FT	1 -> M (APPEARS TO BE ASSOCIATED WITH
FT	DIFFERING DISEASE INCUBATION PERIODS IN
FT	GOATS EXPERIMENTALLY INFECTED WITH
FT	ISOLATES OF BOVINE SPONGIFORM
FT	ENCEPHALOPATHY OR SHEEP SCRAPIE).
FT	SEQUENCE 256 AA; 27897 MW; BDA5795F6FD9746 CRC64;
SO	
QY	1 CITOCHROMESOMAY 13
DB	
DB	217 CITOCHROMESOMAY 229
RESULT	2
PRIOR_ODOHE	STANDARD: PRT; 256 AA.
ID	PRIOR_ODOHE
AC	P47852;
DT	01-FEB-1996 (Rel. 33, Created)
DT	01-FEB-1996 (Rel. 33, Last sequence update)
DT	15-JUL-1998 (Rel. 36, Last annotation update)
DE	MAJOR PRION PROTEIN PRECURSOR (PRP).
GN	PRNP.
OS	Odocoileus hemionus (mule deer) (Black-tailed deer).
OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC	Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Cervoidae;
OC	Cervidae; Odocoileinae; Odocoileus.
OX	NCBI_Taxid=9872;
OX	(1)
RN	SEQUENCE FROM N.A.
RP	MEDLINE=97393774; PubMed=9250209;
RX	Cervenakova L., Rohrer R., Williams S., Brown P., Gajdusek D.C.;
RA	"High sequence homology of the PRP gene in mule deer and Rocky
RT	Mountain elk.";
RL	Lancet 350:219-220(1997).
CC	-I- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC	HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC	-I- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC	"RODS".
CC	-I- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR
CG	(BY SIMILARITY).

```

CC -1- DISEASE: FOUND IN HIGH QUANTITY IN THE BRAIN OF ANIMALS INFECTED
CC WITH THE DEGENERATIVE NEUROLOGICAL DISEASE KNOWN AS CHRONIC
CC WASTING DISEASE (CMD).
CC -1- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC -----
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CC or send an email to license@sib-sib.ch).
CC -----
DR EMBL: U25965; AAA68941.1; -.
DR HSSP: P04925; 1AG2.
DR InterPro: IPR000817; -.
DR Pfam: PF00377; prion; 1.
DR PRINTS: PR00341; PRION.
DR PROSITE: PS00291; PRION_1; 1.
DR PROSITE: PS00706; PRION_2; 1.
KW prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
FT SIGNAL 1 24
FT CHAIN 25 256
FT CARBOHD 184 184
FT CARBOHD 200 200
FT DISULFD 182 217
FT DOMAIN 54 95
FT REPEAT 54 62
FT REPEAT 63 70
FT REPEAT 71 78
FT REPEAT 79 86
FT REPEAT 95 95
SQ SEQUENCE 256 AA; 27961 MW; E98EB121C302FD36 CRC64;
Query Match 100.0%; Score 72; DB 1; Length 256;
Best Local Similarity 100.0%; Pred. NO. 2e-06;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0.
OY 1 CITOYQRESQAVY 13
Db 217 CITOYQRESQAVY 229
RESULT 3
PRIO_SHEEP
ID PRIO_SHEEP STANDARD: PRT: 256 AA.
AC P23907;
DT 01-NOV-1991 (Rel. 20, Created)
DT 01-NOV-1991 (Rel. 20, Last sequence update)
DT 15-DEC-1998 (Rel. 37, Last annotation update)
DE MAJOR PRION PROTEIN PRECURSOR (PRP).
GN PRNP OR PRP.
OS Ovis aries (sheep).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC Bovidae; Caprinae; Ovis.
OX NCBI_TaxID=9940;
RN [1]
RP SEQUENCE FROM N.A., AND VARIANT GLN-171.
RC STRAIN=SUFFOLK; TISSUE=Spleen;
RX MEDLINE=90207218; PubMed=1969635;
RA Goldman W., Hunter N., Foster J.D., Salbaum J.M., Beyreuther K.,
RA Hope J.,
RT "Two alleles of a neural protein gene linked to scrapie in sheep.";
RL proc. Natl. Acad. Sci. U.S.A. 87:2476-2480(1990).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE=Liver;
RA Inoue S., Watanabe A., Horiuchi M., Ishiguro N., Shinagawa M.;
RL Submitted (SEP-1994) to the EMBL/Genbank/DBJ databases.
RN [3]

```

RP SEQUENCE FROM N.A.
RC STAIN-SUPFOLK: TISSUE=Brain;
RX MEDLINE=95011594; PubMed=7926780;
RA Westaway D., Zullian V., Cooper C.M., da Costa M., Neuman S.,
RT Jenny A.L., Detwiler L., Prusiner S.B.;
RT "Homozygosity for prion protein alleles encoding glutamine-171
RL renders sheep susceptible to natural scrapie.",
RN Genes Dev. 8:959-969(1994).
RN [4]
RP VARIANTS SCRAPIE VAL-136; HIS-154 AND GLN-171.
RX MEDLINE=92013957; PubMed=1681027;
RA Goldman M., Hunter N., Benson G., Foster J.D., Hope J.;
RT "Different scrapie-associated fibril proteins (PrP) are encoded by
RL lines of sheep selected for different alleles of the SIp gene.",
RN J. Gen. Virol. 72:2411-2417(1991).
RN [5]
RP VARIANTS SCRAPIE THR-112; VAL-136 AND HIS-154.
RX MEDLINE=93162675; PubMed=8094373;
RA Laplanche J.L., Chetelain J., Westaway D., Thomas S., Dusaucy M.,
RA Brugere-Picoux J., Lannay J.M.;
RT "PrP polymorphisms associated with natural scrapie discovered by
RL denaturing gradient gel electrophoresis.",
RN Genomics 15:30-37(1993).
RN [6]
RP VARIANTS SCRAPIE VAL-136 AND HIS-171, AND VARIANT HIS-154.
RX MEDLINE=92205072; PubMed=7897344;
RA Belt P.B.G.M., Mulleman I.H., Schreuder B.E.C., Bos-De Ruijter J.,
RA Gielkens A.L.J., Smits M.A.;
RT "Identification of five allelic variants of the sheep PrP gene and
RL their association with natural scrapie.",
RN J. Gen. Virol. 76:509-517(1995).
RN [7]
RP VARIANTS THR-137; PHE-141 AND GLN-211.
RX MEDLINE=97042305; PubMed=8887505;
RA Bossers A., Schreuder B.E.C., Mulleman I.H., Belt P.B.G.M.,
RA Smits M.A.;
RT "PrP genotype contributes to determining survival times of sheep with
RL natural scrapie.",
RN J. Gen. Virol. 77:2669-2673(1996).
RL -1- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC -1- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC "RODS".
CC -1- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC -1- DISEASE: POLYMORPHISM AT POSITION 171 MAY BE RELATED TO THE
CC ALLELES OF SCRAPIE INCUBATION-CONTROL (SIC) GENE IN THIS SPECIES.
CC -1- DISEASE: FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND ANIMALS
CC INFECTED WITH DEGENERATIVE NEUROLOGICAL DISEASES SUCH AS KURU,
CC CREATZFELDT-JAKOB DISEASE (CJD), GERSTMAN-STRAUSSLER SYNDROME
CC (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC -1- DISEASE: SCRAPIE IS A TRANSMISSIBLE NEURODEGENERATIVE DISORDER OF
CC SHEEP AND GOATS. MOST SHEEP THAT CONTRACT THE DISEASE NATURALLY
CC DIE BETWEEN 24 AND 50 MONTHS OF AGE. THE INCUBATION PERIOD IN
CC SHEEP DEPENDS ON THE STRAIN(S) OF THE INFECTING PATHOGEN, SHEEP
CC AGE AT EXPOSURE, AND THE SHEEP GENOTYPE. THE SURVIVAL TIME IS
CC MAINLY DETERMINED BY A SINGLE GENETIC LOCUS, SIp, WHICH HAS TWO
CC ALLELES, SUSCEPTIBLE (SA) AND RESISTANT (PA). SHORT INCUBATION
CC PERIOD IS CONFERRED BY THE PARTIALLY DOMINANT SA ALLELE. SCRAPIE
CC CAN BE SPREAD BETWEEN FLOCKMATES, OR IT CAN BE TRANSMITTED FROM AN
CC INFECTED EWE TO ITS LAMB.
CC -1- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC -----
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CC -----
DR EMBL: M31313; AB097765.1; -
DR EMBL: D38179; BA07376.1; -

DR	EMBL: X79912; CAA56283.1;	-
DR	PIR: A35983; A35983.	
DR	HSSP; P04925; IAG2.	
DR	InterPro: IPR000817;	-
DR	Pfam; PF00377; Prion; 1.	
DR	PRINTS; PR00341; PRION.	
DR	PROSITE; PS00291; PRION_1; 1.	
DR	PROSITE; PS00706; PRION2; 1.	
KW	Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.	
FT	SIGNAL	1 26
FT	CHAIN	25 256
FT	CARBOHYD	184 184
FT	CARBOHYD	200 200
FT	DISULFID	182 217
FT	DOMAIN	54 95
FT	REPEAT	54 62
FT	REPEAT	63 70
FT	REPEAT	71 78
FT	REPEAT	79 86
FT	REPEAT	87 95
FT	VARIANT	112 112
FT	VARIANT	136 136
FT	VARIANT	137 137
FT	VARIANT	141 141
FT	VARIANT	154 154
FT	VARIANT	171 171
FT	VARIANT	171 171
FT	VARIANT	211 211
SO	SEQUENCE	256 AA; 27916 MM;

MAJOR PRION PROTEIN.
N-LINKED (GLCNAC. . .) (PROBABLE).
N-LINKED (GLCNAC. . .) (PROBABLE).
BY SIMILARITY.
5 x 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-O.

M -> T.
A -> V (IN SCRAPIE; SHORT INCUBATION; STR SA ALLELE).
M -> T.
L -> F.
R -> H.
R -> Q (LINKED TO SUSCEPTIBILITY TO SCRAPIE).
R -> H (IN SCRAPIE; LOW INCIDENCE).

7FFBEA6C6DFDE8BB CRC64:

```

Query Match          100.0%   Score 72; DB 1; Length 256;
Best Local Similarity 100.0%; Pred. No. 2e-06;
Matches    13; Conservative      0; Mismatches     0; Indels       0; Gaps
                                0;

QY      1 CITOYORESOQAY 13
        |||||
Db       217 CITOYORESOQAY 229

RESULT  4
PRP2_BOVIN
AC      001880; STANDARD; PRT; 256 AA.
DT      01-JUN-1994 (Rel. 29, Created)
DT      01-JUN-1994 (Rel. 29, Last sequence update)
DT      01-NOV-1997 (Rel. 35, Last annotation update)
DE      MAJOR PRION PROTEIN 2 PRECURSOR (PRP) (MAJOR SCRABIE-ASSOCIATED FIBRIL
DE      PROTEIN 2).
OS      Bos taurus (Bovine).
OC      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC      Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
CC      Bovinae; Bovine; Bos.
OX      NCBI_TaxID=9913;
RN      [1]
RP      SEQUENCE FROM N.A.
RC      TISSUE=Brain;
RX      MEDLINE=93118243; PubMed=1362024;
RA      Yoshimoto J., Iinuma T., Ishiguro N., Horiuchi M., Imamura M.,
RA      Shinagawa M.;
RT      "Comparative expression analysis and expression of bovine PrP gene in
RT      mouse L-929 cells."
RL      Virus Genes 6:343-356(1992).
CC      -1 FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC      HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC      -1 SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC      "RODS".
CC      -1 SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC      -1 DISEASE: FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND ANIMALS
CC      INFECTED WITH DEGENERATIVE NEUROLOGICAL DISEASES SUCH AS KURU,
```

```

CC CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC (GSS), SCRAPE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC - TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC - SIMILARITY: BELONGS TO THE PRION FAMILY.
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CC -----
CC DR EMBL; D10614; BAA01469.1; -.
CC PIR; J00268; J00268.
CC HSSP; P04925; IAG2.
CC DR InterPro; IPR000817; -.
CC DR Pfam; PF00377; prion; 1.
CC DR PRINTS; PR00341; PRION.
CC DR PROSITE; PS00291; PRION.1; 1.
CC DR PROSITE; PS00706; PRION.2; 1.
CC KW Signal; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
CC FT CHAIN 1 24 MAJOR PRION PROTEIN 2.
CC FT CARBOHYD 25 256 N-LINKED (GLCNAC. . .) (POTENTIAL).
CC FT CARBOHYD 184 184 N-LINKED (GLCNAC. . .) (POTENTIAL).
CC FT DISULFID 200 200 BY SIMILARITY.
CC FT DISULFID 182 217 5 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-
CC FT DOMAIN 54 95
CC FT REPEAT 54 62 0.
CC FT REPEAT 63 70 2.
CC FT REPEAT 71 78 3.
CC FT REPEAT 79 86 4.
CC FT REPEAT 87 95 5.
CC SQ SEQUENCE 256 AA; 27880 MW; 0D969FF2D9033B30 CRC64;

Query Match 100.0%; Score 72; DB 1; Length 256;
Best Local Similarity 100.0%; Pred. No. 2e-06;
Matches 13; Conservative 0; Mismatches . ; Indels 0; Gaps 0;

OY 1 CITORYRESOAY 13
Db 217 CITORYRESOAY 229

RESULT 5
PRIO_BOVIN STANDARD; PRT; 264 AA.
ID PRIO_BOVIN AC P10279;
DT 01-MAR-1989 (Rel. 10, Created)
DT 01-NOV-1991 (Rel. 20, Last sequence update)
DT 15-JUL-1998 (Rel. 36, Last annotation update)
DE MAJOR PRION PROTEIN 1 PRECURSOR (PRP) (MAJOR SCRAPE-ASSOCIATED FIBRIL
DE PROTEIN 1).
GN PRNP.
OS Bos taurus (Bovine).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Mammalia; Euteria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC Bovidae; Bovinae; Bos.
OX NCBI_TaxID=9913;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=HOLSTEIN-FRIESIAN;
RA GOLDMAN-W, Hunter N., Martin T., Dawson M., Hope J.;
RT "Different forms of the bovine PrP gene have five or six copies of a
RT short, G-c-rich element within the protein-coding exon.";
RL J. Gen. Virol. 72:201-204(1991).
RP SEQUENCE FROM N.A.
RC TISSUE=Brain;
RX MEDLINE=93116243; PubMed=1362024;

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RA Yoshimoto J., Iinuma T., Ishiguro N., Horiuchi M., Imamura M.,
RA Shinagawa M.;
RT "Comparative sequence analysis and expression of bovine PrP gene in
RT mouse L-929 cells.";
RL Virus Genes 6:343-356(1992).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE=91179783; PubMed=8440932;
RA Prusiner S.B., Fuzi M., Scott M., Serban D., Serban H.,
RA Taraboulos A., Gabriel J.M., Wells G.A., Wilesmith J.W., Bradley R.;
RT "Immunologic and molecular biologic studies of prion proteins in
RT bovine spongiform encephalopathy.";
RL J. Infect. Dis. 167:602-613(1993).
RN [4]
RP SEQUENCE FROM N.A.
RC STRAIN=HOLSTEIN-FRIESIAN; TISSUE=Brain;
RA Horiuchi M.;
RL Submitted (FEB-1997) to the EMBL/GenBank/DBJ databases.
RN [5]
RP SEQUENCE OF 1-15 FROM N.A.
RA Tanaka M., Inoue S., Ikeda T., Horiuchi M., Ishiguro N., Shinagawa M.;
RL Submitted (JAN-1994) to the EMBL/GenBank/DBJ databases.
RN [6]
RP SEQUENCE OF 25-36.
RX MEDLINE=89057122; PubMed=2904126;
RA Hope J., Reeke L.J.D., Hunter N., Multhaup G., Beyreuther K.,
RA White H., Scott A.C., Stack M.J., Dawson M., Wells G.A.;
RT " fibrils from brains of cows with new cattle disease contain scrapie
RT associated protein.";
RL Nature 336:390-392(1988).
RC -1- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC -1- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC "RDS".
CC -1- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC -1- DISEASE: FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND ANIMALS
CC INFECTED WITH DEGENERATIVE NEUROLOGICAL DISEASES SUCH AS KRUU,
CC CRUFTFELD-T-JAKOB DISEASE (CJD), GERSTMAN-STRAUSSLER SINDROME
CC (GSS), SCRAPE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC -1- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC -----
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CC or send an email to license@isb.ch).
CC -----
DR EMBL, X55882; CA39368.1; -
DR EMBL, D10612; BAA01467.1; -
DR EMBL, D10613; BAA01468.1; -
DR EMBL, S55629; AAB25514.1; -
DR EMBL, AB001468; BAA19253.1; -
DR EMBL, D26151; BAA05138.1; -
DR PIR, S07347; S07347.
DR PIR, J07093; J07093.
DR PIR, A54330; A54330.
DR HSSP; P04925; 1AG2.
DR InterPro; IPR000817; -
DR Pfam; PF00377; prion.1.
DR PRINTS; PR00341; PRION.
DR PROSITE; PS00291; PRION_1; 1.
DR PROSITE; PS00706; PRION_2; 1.
KW Prion; Brain; Glycoprotein; GPI-anchor; Repeat; signal.
FT SIGNAL 1 24
FT CHAIN 25 264 MAJOR PRION PROTEIN 1.
FT CARBOHYD 192 192 N-LINKED (GLCNAC. . .) (PROBABLE).
FT CARBOHYD 208 208 N-LINKED (GLCNAC. . .) (PROBABLE).
FT DISULFID 190 225 BY SIMILARITY.
FT DOMAIN 54 103 6 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-
FT Q.

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FT REPEAT 54 62 1.
 FT REPEAT 63 70 2.
 FT REPEAT 71 78 3.
 FT REPEAT 79 86 4.
 FT REPEAT 87 94 5.
 FT REPEAT 95 103 6.
 FT VARIANT 71 78 MISSING (IN A SECOND ALLELE).
 FT CONFLICT 218 218 E -> K (IN REF. 2 AND 4).
 SQ SEQUENCE 264 AA; 28614 MM; D6D214038316A231 CRC64;

Query Match Best Local Similarity 100.0%; Score 72; DB 1; Length 264;
 Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITORYESQAVY 13
 Db 225 CITORYESQAVY 237

RESULT 6
 PRIORITY AC STANDARD; PRT; 232 AA.
 AC P40246;
 DT 01-FEB-1995 (Rel. 31, Created)
 DT 01-FEB-1995 (Rel. 31, Last sequence update)
 DT 01-OCT-1996 (Rel. 34, Last annotation update)
 DE MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C) (FRAGMENT).
 GN PRNP.
 OS Ateles Geoffroyi (black-handed spider monkey).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Primates; Platyrrhini; Cebidae; Ateles.
 OX NCBI_TaxID=9509;
 RN [1]
 RP SEQUENCE FROM N.A.
 RA MEDLINE=95139066; PubMed=7837269;
 RA Schatzl H.M., Dacosta M., Taylor L., Cohen F.E., Prusiner S.B.;
 RL "Prion protein gene variation among primates.";
 RL J. Mol. Biol. 245:362-374(1995).
 CC -1- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
 CC HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
 CC -1- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
 CC "RODS".
 CC -1- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
 CC -1- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
 CC ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
 CC CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMAN-STRAUSSLER SYNDROME
 CC (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
 CC TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
 CC -1- SIMILARITY: BELONGS TO THE PRION FAMILY.
 CC
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 CC
 CC EMBL; U08309; AAC50097.1; -;
 DR HSSP; P04925; IAG2.
 DR InterPro: IPR000817; -;
 DR Pfam: PF00377; prion; 1.
 DR PROSITE; PS00291; PRION_1; 1.
 DR PROSITE; PS00706; PRION_2; 1.
 KW Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
 FT NON_TER 1 1
 FT SIGNAL <1 15
 FT CHAIN 16 214
 FT PROPEP 215 >232
 FT LIPID 214 214
 FT DISULFID 163 198
 FT CARBOHYD 165 165
 BY SIMILARITY.
 MAJOR PRION PROTEIN.
 REMOVED IN MATURE FORM (BY SIMILARITY).
 GPI-ANCHOR (BY SIMILARITY).
 BY SIMILARITY.
 N-LINKED (GLCNAC. . .) (POTENTIAL).
 N-LINKED (GLCNAC. . .) (POTENTIAL).

FT CARBOHYD 181 181 N-LINKED (GLCNAC. . .) (POTENTIAL).
 FT DOMAIN 44 84 4 X 8 AA TANDEM REPEATS OF P-H-G-G-W-G.
 FT REPEAT 44 51 1.
 FT REPEAT 52 59 2.
 FT REPEAT 60 67 3.
 FT REPEAT 68 75 4.
 FT NON_TER 232 232
 SQ SEQUENCE 232 AA; 23596 MM; DE2D75F04C05C4A CRC64;

Query Match Best Local Similarity 95.8%; Score 69; DB 1; Length 232;
 Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITORYESQAVY 13
 Db 198 CITORYESQAVY 210

RESULT 7
 PRIORITY AC STANDARD; PRT; 238 AA.
 AC Q95270;
 DT 01-NOV-1997 (Rel. 35, Created)
 DT 01-NOV-1997 (Rel. 35, Last sequence update)
 DT 01-NOV-1997 (Rel. 35, Last annotation update)
 DE MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C) (FRAGMENT).
 GN PRNP OR PRP.
 OS Theropithecus gelada (Gelada baboon).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Primates; Catarrhini; Cercopithecoidea;
 OC Cercopithecoidea; Theropithecus.
 OX NCBI_TaxID=9565;
 RN [1]
 RP SEQUENCE FROM N.A.
 RA der Kuyil A.C., Dekker J.T., Goudsmit J.;
 RL Submitted (NOV-1996) to the EMBL/GenBank/DBJ databases.
 CC -1- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
 CC HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
 CC -1- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
 CC "RODS".
 CC -1- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
 CC -1- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
 CC ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
 CC CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMAN-STRAUSSLER SYNDROME
 CC (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
 CC TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
 CC -1- SIMILARITY: BELONGS TO THE PRION FAMILY.
 CC
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 CC
 CC EMBL; U75383; AAB50630.1; -;
 DR HSSP; P04925; IAG2.
 DR InterPro: IPR000817; -;
 DR Pfam: PF00377; prion; 1.
 DR PROSITE; PS00291; PRION_1; 1.
 DR PROSITE; PS00706; PRION_2; 1.
 KW Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
 FT NON_TER 1 1
 FT SIGNAL <1 15
 FT CHAIN 16 >238
 FT DISULFID 164 199
 FT CARBOHYD 166 166
 FT CARBOHYD 182 182
 FT DOMAIN 44 83
 BY SIMILARITY.
 MAJOR PRION PROTEIN.
 BY SIMILARITY.
 N-LINKED (GLCNAC. . .) (POTENTIAL).
 N-LINKED (GLCNAC. . .) (POTENTIAL).
 4 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G.
 0.

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FT REPEAT 44 52 1.
FT REPEAT 53 60 2.
FT REPEAT 61 68 3.
FT REPEAT 69 76 4.
FT NON_TER 238 238
SQ SEQUENCE 238 AA; 26104 MW; 5F59BFF602243EDB CRC64;

Query Match
Best Local Similarity 95.8%; Score 69; DB 1; Length 238;
Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 CITORYOESQAYY 13
Db 199 CITORYOESQAYY 211

RESULT 8
PRIO.ATEPA STANDARD; PRT; 252 AA.
AC P51446;
DT 01-OCT-1996 (Rel. 34, Created)
DT 01-OCT-1996 (Rel. 34, Last sequence update)
DT 01-OCT-1996 (Rel. 34, Last annotation update)
DE MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C).
GN PRNP.
OS Ateles paniscus (Black spider monkey).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Platyrrhini; Cebidae; Ateles.
OX NCBI_TaxID=9510;
RN RN
RP SEQUENCE FROM N.A.
RC TISSUE=Brain;
RX MEDLINE=95083661; PubMed=7991600;
RA Cervenakova L., Brown P., Goldfarb L.G., Nagle J., Pettrone R.,
RA Rubenstein R., Dubnick M., Gibbs C.J., Gajdusek D.C.;
RT "Infectious amyloid precursor gene sequences in primates used for
RT experimental transmission of human spongiform encephalopathy.";
RL Proc. Natl. Acad. Sci. U.S.A. 91:12159-12162(1994).
CC -1- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC -1- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC "RODS".
CC -1- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC -1- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
CC ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
CC CRETZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC -1- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC -----
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CC -----
CC EMBL: U15164; AAA68634.1; -
CC DR HSSP: P04925; IAG2.
CC DR InterPro: IPR000817; -
CC DR Pfam: PF00377; prion; 1.
CC DR PRINTS: PR00341; PRION.
CC DR PROSITE: PS00291; PRION_1; 1.
CC DR PROSITE: PS00706; PRION_2; 1.
CC KW Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
CC FT SIGNAL 1 22
CC FT CHAIN 23 229
CC FT PROPEP 230 252
CC FT LIPID 229 229
CC FT DISULFID 178 213
CC FT CARBOHYD 180 180
CC N-LINKED (GLCNAC. .) (POTENTIAL).

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FT CARBOHYD 196 196
FT DOMAIN 51 90
FT REPEAT 51 58
FT REPEAT 59 66
FT REPEAT 67 74
FT REPEAT 75 82
FT REPEAT 83 90
SQ SEQUENCE 252 AA; 27718 MW; 20EA38A42DC56D1 CRC64;

Query Match
Best Local Similarity 95.8%; Score 69; DB 1; Length 252;
Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 CITORYOESQAYY 13
Db 213 CITORYOESQAYY 225

RESULT 9
PRIO.CEBAP STANDARD; PRT; 252 AA.
AC P40249;
DT 01-FEB-1995 (Rel. 31, Created)
DT 01-FEB-1995 (Rel. 31, Last sequence update)
DT 01-OCT-1996 (Rel. 34, Last annotation update)
DE MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C).
GN PRNP.
OS Cebus apella (Brown-capped capuchin).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Platyrrhini; Cebidae; Cebus.
OX NCBI_TaxID=9515;
RN RN
RP SEQUENCE FROM N.A.
RX MEDLINE=95139066; PubMed=7837269;
RA Scharz H.M., Dacosta M., Taylor L., Cohen F.E., Prusiner S.B.;
RT "Prion protein gene variation among primates.";
RL J. Mol. Biol. 245:362-374(1995).
CC -1- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC -1- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC "RODS".
CC -1- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC -1- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
CC ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
CC CRETZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC -1- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC -----
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CC -----
CC EMBL: U08295; AAC50084.1; -
CC DR HSSP: P04925; IAG2.
CC DR InterPro: IPR000817; -
CC DR Pfam: PF00377; prion; 1.
CC DR PRINTS: PR00341; PRION.
CC DR PROSITE: PS00291; PRION_1; 1.
CC DR PROSITE: PS00706; PRION_2; 1.
CC KW Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
CC FT SIGNAL 1 22
CC FT CHAIN 23 229
CC FT PROPEP 230 252
CC FT LIPID 229 229
CC FT DISULFID 178 213
CC FT CARBOHYD 180 180
CC N-LINKED (GLCNAC. .) (POTENTIAL).

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FT CARBOHYD 196 196 N-LINKED (GLCNAC. . .) (POTENTIAL).
 FT DOMAIN 51 90 5 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-
 FT REPEAT 51 58 0
 FT REPEAT 59 66 1.
 FT REPEAT 67 74 2.
 FT REPEAT 75 82 3.
 FT REPEAT 83 90 4.
 FT REPEAT 83 90 5.
 SQ SEQUENCE 252 AA; A2DFCA0AD26D7821 CRC64;
 Query Match 95.88; Score 69; DB 1; Length 252;
 Best Local Similarity 92.3%; Pred. No. 7.3e-06;
 Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 DB 213 CITORYERESQAVY 225.
 RESULT 10
 PRIO_GORGO STANDARD; PRT: 253 AA.
 AC P40252; Q28419;
 DT 01-FEB-1995 (Rel. 31, Created)
 DT 01-FEB-1995 (Rel. 31, Last sequence update)
 DT 15-JUN-1998 (Rel. 36, Last annotation update)
 DE MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C).
 GN PRNP.
 OS Gorilla gorilla gorilla (lowland gorilla).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Primates; Catarrhini; Homiidae; Gorilla.
 OX NCBI_TaxID=9595;
 RN [1]
 RP SEQUENCE FROM N.A.
 RA MEDLINE=95139066; PubMed=7837269;
 RA Schatzl H.M., Dacosta M., Taylor L., Cohen F.E., Prusiner S.B.;
 RT "Prion protein gene variation among primates.";
 RL J. Mol. Biol. 245:362-374(1995).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC TISSUE=Blood;
 RX MEDLINE=95083661; PubMed=7991600;
 RX Cervenakova L., Brown P., Goldfarb L.G., Nagle J., Pettrone K.,
 RA Rubenstein R., Dubnick M., Gibbs C.J., Gajdusek D.C.;
 RT "Infectious amyloid precursor gene sequences in primates used for
 experimental transduction of human spongiform encephalopathy.";
 RL Proc. Natl. Acad. Sci. U.S.A. 91:12159-12162(1994).
 CC -1- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
 HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
 CC -1- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
 "RODS".
 CC -1- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
 CC -1- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
 ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
 CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
 (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
 TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
 CC -1- SIMILARITY: BELONGS TO THE PRION FAMILY.
 CC -----
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 CC -----
 DR EMBL: U08300; AAC50089.1; -;
 DR EMBL: U15166; AAA68633.1; -;
 DR HSP: P04925; IAG2.
 DR Interpro: IPR000817; -;
 DR Pfam: PF00377; prion; 1.

DR PRINTS: PR00341; PRION.
 DR PROSITE: PS00291; PRION_1; 1.
 DR PROSITE: PS00706; PRION_2; 1.
 KM Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal. 1
 FT SIGNAL 1 22
 FT CHAIN 23 230 MAJOR PRION PROTEIN.
 FT PROPEP 231 253 REMOVED IN MATURE FORM (BY SIMILARITY).
 FT LIPID 230 230 GPI-ANCHOR (BY SIMILARITY).
 FT DISULFID 179 214 BY SIMILARITY.
 FT CARBOHYD 181 181 N-LINKED (GLCNAC. . .) (POTENTIAL).
 FT CARBOHYD 197 197 N-LINKED (GLCNAC. . .) (POTENTIAL).
 FT DOMAIN 51 91 5 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-
 FT REPEAT 51 59 0.
 FT REPEAT 60 67 1.
 FT REPEAT 68 75 2.
 FT REPEAT 76 83 3.
 FT REPEAT 84 91 4.
 FT REPEAT 84 91 5.
 FT CONFLICT 6 6 C -> Y (IN REF. 2).
 SQ SEQUENCE 253 AA; 27660 MM; E28FAC3FA8CA49E CRC64;
 Query Match 95.88; Score 69; DB 1; Length 253;
 Best Local Similarity 92.3%; Pred. No. 7.4e-06;
 Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 DB 214 CITORYERESQAVY 226
 RESULT 11
 PRIO_HUMAN STANDARD; PRT: 253 AA.
 AC P04156;
 DT 01-NOV-1986 (Rel. 03, Created)
 DT 01-NOV-1986 (Rel. 03, Last sequence update)
 DT 01-OCT-2000 (Rel. 40, Last annotation update)
 DE MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C) (ASCR).
 GN PRNP.
 OS Homo sapiens (Human).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Primates; Catarrhini; Homiidae; Homo.
 OX NCBI_TaxID=9606;
 RN [1]
 RP SEQUENCE FROM N.A.
 RA MEDLINE=86300093; PubMed=3755672;
 RA Kretschmar H.A., Stowring L.E., Westaway D., Stubblebine W.H.,
 RA Prusiner S.B., Dearmond S.J.;
 RT "Molecular cloning of a human prion protein cDNA.";
 RL DNA 5:315-324(1986).
 RN [2]
 RP SEQUENCE OF 8-253 FROM N.A.
 RX MEDLINE=86261778; PubMed=3014653;
 RX Liao Y.-C.J., Lebo R.V., Clawson G.A., Smuckler E.A.;
 RT "Human prion protein cDNA: molecular cloning, chromosomal mapping,
 and biological implications.";
 RL Science 233:364-367(1986).
 RN [3]
 RP SEQUENCE OF 58-85 AND 111-150 (VARIANT AMYLOID GSS).
 RX MEDLINE=91160504; PubMed=1672107;
 RA Tagliafanti F., Prelli F., Ghiso J., Bugiani O., Serban D.,
 RA Prusiner S.B., Farlow M.R., Ghetti B., Frangione B.;
 RT "Amyloid protein of Gerstmann-Strausler-Scheinker disease (Indiana
 kindred) is an 11 kd fragment of prion protein with an N-terminal
 glycine at codon 58.";
 RL EMBO J. 10:513-519(1991).
 RN [4]
 RP REVIEW ON VARIANTS.
 RX MEDLINE=93372867; PubMed=8364585;
 RX Palmer M.S., Collinge J.;
 RT "Mutations and polymorphisms in the prion protein gene.";
 RL Hum. Mutat. 2:168-173(1993).

RN [5]
 RP REVIEW ON VARIANTS.
 RX MEDLINE=94029646; PubMed=8105771;
 RA Prusiner S.B.;
 RT "Genetic and infectious prion diseases."
 RL Arch. Neurol. 50:1129-1153(1993).
 RN [6]
 RP VARIANT GSS LEU-102.
 RX MEDLINE=89159432; PubMed=2564168;
 RA Hsiao K., Baker H.F., Crow T.J., Poulter M., Owen F.,
 RA Terwilliger J.D., Westaway D., Ott J., Prusiner S.B.;
 RT "Linkage of a prion protein missense variant to Gerstmann-Strausler
 RT syndrome."
 RL Nature 338:342-345(1989).
 RN [7]
 RP VARIANTS LEU-102; VAL-117 AND VAL-129.
 RX MEDLINE=89392018; PubMed=2783132;
 RA Doh-ura K., Tateishi J., Sasaki H., Kitamoto T., Sasaki Y.;
 RT "Pro->Leu change at position 102 of prion protein is the most
 RT common but not the sole mutation related to Gerstmann-Strausler
 RT syndrome."
 RL Biochem. Biophys. Res. Commun. 163:974-979(1989).
 RN [8]
 RP VARIANT FEI ASN-178.
 RX MEDLINE=92195483; PubMed=1347910;
 RA Medori R., Montagna P., Tritschler H.J., Leblanc A., Cortelli P.,
 RA Tinuper P., Lugaresi E., Gambetti P.;
 RT "Fatal familial insomnia: a second kindred with mutation of prion
 RT protein gene at codon 178."
 RL Neurology 42:669-670(1992).
 RN [9]
 RP VARIANT CJD ASN-178.
 RX MEDLINE=91124933; PubMed=1671440;
 RA Goldfarb L.G., Haltia M., Brown P., Nieto A., Kovanen J.,
 RA McCombie W.R., Trapp S., Gajdusek D.C.;
 RT "New mutation in scrapie amyloid precursor gene (at codon 178) in
 RT Finnish Creutzfeldt-Jakob kindred."
 RL Lancet 337:425-425(1991).
 RN [10]
 RP VARIANT CJD LYS-200.
 RX MEDLINE=90355709; PubMed=1975028;
 RA Goldfarb L., Mitrova E., Brown P., Toh B.K., Gajdusek D.C.;
 RT "Mutation in codon 200 of scrapie amyloid protein gene in two clusters
 RT of Creutzfeldt-Jakob disease in Slovakia."
 RL Lancet 336:514-515(1990).
 RN [11]
 RP VARIANT GSS ARG-217.
 RX MEDLINE=93250977; PubMed=1363810;
 RA Hsiao K., Dlouhy S.R., Farlow M.R., Cass C., da Costa M.,
 RA Conneally P.M., Hodes M.E., Ghetti B., Prusiner S.B.;
 RT "Mutant prion proteins in Gerstmann-Strausler-Scheinker disease with
 RT neurofibrillary tangles."
 RL Nat. Genet. 1:68-71(1992).
 RN [12]
 RP VARIANTS CJD ILE-180 AND ARG-232.
 RX MEDLINE=93213314; PubMed=8461023;
 RA Kitamoto T., Ohta M., Doh-ura K., Hitoshi S., Terao Y., Tateishi J.;
 RT "Novel missense variants of prion protein in Creutzfeldt-Jakob
 RT disease or Gerstmann-Strausler syndrome."
 RL Biochem. Biophys. Res. Commun. 191:709-714(1993).
 RN [13]
 RP VARIANT CJD ILE-210.
 RX MEDLINE=94071412; PubMed=7902693;
 RA Pocchiari M., Salvatore M., Cutruzzola F., Genuardi M.,
 RA Alicata C.T., Masullo C., Macchi G., Alema G., Galgani S., Xi Y.G.,
 RA Petraroli R., Silvestrini M.C., Brunori M.;
 RT "A new point mutation of the prion protein gene in Creutzfeldt-Jakob
 RT disease."
 RL Ann. Neurol. 34:802-807(1993).
 RN [14]
 RP VARIANT GSS LEU-105.
 RX MEDLINE=94077414; PubMed=7902972;
 RA Yamada M., Itoh Y., Fujisasaki H., Naruse S., Kaneko K., Kitamoto T.,

RA Tateishi J., Otomo E., Hayakawa M., Tanaka J., Matsushita M.,
 RA Miyatake T.;
 RT "A missense mutation at codon 105 with codon 129 polymorphism of the
 RT prion protein gene in a new variant of Gerstmann-Strausler-Scheinker
 RT disease."
 RL Neurology 43:2723-2724(1993).
 RN [15]
 RP VARIANT GSS LEU-105.
 RX MEDLINE=95213742; PubMed=7699395;
 RA Itoh Y., Yamada M., Hayakawa M., Shozawa T., Tanaka J., Matsushita M.,
 RA Kitamoto T., Tateishi J., Otomo E.;
 RT "A variant of Gerstmann-Strausler-Scheinker disease carrying codon
 RT 105 mutation with codon 129 polymorphism of the prion protein gene: a
 RT clinicopathological study."
 RL J. Neurol. Sci. 127:77-86(1994).
 RN [16]
 RP VARIANT CJD LYS-200.
 RX MEDLINE=94142912; PubMed=7906019;
 RA Inoue I., Kitamoto T., Doh-ura K., Shi H., Goto I., Tateishi J.;
 RT "Japanese family with Creutzfeldt-Jakob disease with codon 200 point
 RT mutation of the prion protein gene."
 RL Neurology 44:299-301(1994).
 RN [17]
 RP VARIANT CJD LYS-200.
 RX MEDLINE=94316708; PubMed=7913755;
 RA Gabizon R., Rosenman H., Melner Z., Kahana I., Kahana E., Shugart Y.,
 RA Olt J., Prusiner S.B.;
 RT "Mutation in codon 200 and polymorphism in codon 129 of the prion
 RT protein gene in Libyan Jews with Creutzfeldt-Jakob disease."
 RL Philos. Trans. R. Soc. Lond., B, Biol. Sci. 343:385-390(1994).
 RN [18]
 RP VARIANT GSS LEU-102.
 RX MEDLINE=95303274; PubMed=7783876;
 RA Young K., Jones C.K., Piccardo P., Lazzerini A., Golbe L.I.,
 RA Zimmerman T.R., Dickson D.W., McLachlan D.C., St George-Hyslop P.H.,
 RA Lennox A.;
 RT "Gerstmann-Strausler-Scheinker disease with mutation at codon 102
 RT and methionine at codon 129 of PRNP in previously unreported
 RT patients."
 RL Neurology 45:1127-1134(1995).
 RN [19]
 RP VARIANT GSS LEU-102, AND VARIANT LYS-219.
 RX MEDLINE=96390486; PubMed=8797472;
 RA Barbanti P., Fabbri G., Salvatore M., Petraroli R., Cardone F.,
 RA Maras B., Equestre M., Macchi G., Lenzi G.L., Pocchiari M.;
 RT "Polymorphism at codon 129 or codon 219 of PRNP and clinical
 RT heterogeneity in a previously unreported family with Gerstmann-
 RT Strausler-Scheinker disease (PrP-P102L mutation)."
 RL Neurology 47:734-741(1996).
 RN [20]
 RP VARIANT CJD HIS-208.
 RX MEDLINE=97065966; PubMed=8909447;
 RA Mastrianni J.A., Iannicola C., Myers R.M., Dearmond S., Prusiner S.B.;
 RT "Mutation of the prion protein gene at codon 208 in familial
 RT Creutzfeldt-Jakob disease."
 RL Neurology 47:1305-1312(1996).
 RN [21]
 RP VARIANT CJD HIS-208.
 RX MEDLINE=97410007; PubMed=9266722;
 RA Nitini R., Rosemberg S., Passos-Bueno M.R., da Silva L.S.,
 RA Tugheiti P., Papadopoulos M., Carrilho P.M., Caramelli P.,
 RA Albrecht S., Zatz M., Leblanc A.;
 RT "Familial spongiform encephalopathy associated with a novel prion
 RT protein gene mutation."
 RL Ann. Neurol. 42:138-146(1997).
 RN [22]
 RP VARIANT SCHIZOAFFECTIVE DISORDER SRR-171.
 RX MEDLINE=98044028; PubMed=9384372;
 RA Samata H.B., Mari J.D., Vallada H.P., Moura R.P., Simpson A.J.G.,
 RA Brentani R.R.;
 RT "A prion-linked psychiatric disorder."
 RL Nature 390:241-241(1997).
 RN [23]

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RP VARIANTS GSS ASN-202 AND PRO-212.
RX MEDLINE-99000187; PubMed-9786248;
RA Piccardo P., Dlouhy S.R., Lievens P.M., Young K., Bird T.D.,
RA Nockhin D., Dickson D.W., Vinters H.V., Zimmerman T.R.,
RA Machenize I.R., Kish S.J., Ang L.C., De Carli C., Pochlari M.,
RA Brown P., Gibbs C.J., Jr., Gajdusek D.C., Bugiani O., Ironside J.,
RA Tagliafanti F., Ghetti B.;
RT "Phenotypic variability of Gerstmann-Strausler-Scheinker disease is
RT associated with prion protein heterogeneity.";
RL J. Neuropathol. Exp. Neurol. 57:979-988(1998).
RN [24]
RP VARIANT GSS ARG-187.
RX MEDLINE-20049886; PubMed-10581485;
RA Cervenakova L., Buetefisch C., Lee H.S., Tallier I., Stone G.,

Query Match          95.8%; Score 69; DB 1; Length 253;
Best Local Similarity 92.3%; Pred. No. 7.4e-06;
Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 CITOYERESQAY 13
DB 214 CITOYERESQAY 226

RESULT 12
PRIO_PANTR STANDARD; PRT; 253 AA.
AC P40253;
DT 01-FEB-1995 (Rel. 31, Created)
DT 01-FEB-1995 (Rel. 31, Last sequence update)
DT 30-MAY-2000 (Rel. 39, Last annotation update)
DE MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C).
GN PRNP.
OS Pan troglodytes (Chimpanzee), Hylobates lar (Common gibbon), and
OS Hylobates syndactylus (Stamang) (Symphalangus syndactylus).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Pan.
OX NCBI_Taxid=9598, 9580, 9590;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE-95139066; PubMed-7837269;
RA Schatzl H.M., Dacosta M., Taylor L., Cohen F.E., Prusiner S.B.;
RT "Prion protein gene variation among primates.";
RL J. Mol. Biol. 245:362-374(1995).
RN [2]
RP SEQUENCE FROM N.A.
RX SPECIES-P. troglodytes; TISSUE-Brain;
RX MEDLINE-95083661; PubMed-7991600;
RA Cervenakova L., Brown P., Goldfarb L.G., Nagle J., Petrone K.,
RA Rubenstein R., Dubnick M., Gibbs C.J., Gajdusek D.C.;
RT "Infectious amyloid precursor gene sequences in primates used for
RT experimental transmission of human spongiform encephalopathy.";
RL Proc. Natl. Acad. Sci. U.S.A. 91:12159-12162(1994).
CC -1- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC -1- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC "RODS".
CC -1- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC -1- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
CC ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
CC CRETZFELDT-JAKOB DISEASE (CJD), GERSTMAN-STRAUSSLER SYNDROME
CC (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC -1- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC -----
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DR EMBL: U08296; AAC50085.1; -
DR EMBL: U08299; AAC50088.1; -
DR EMBL: U08308; AAC50096.1; -
DR EMBL: U15039; AAC50632.1; -
DR HSSP: P04925; IAG2.
DR InterPro: IPR000817; -
DR Pfam: PF00377; Prion; 1.
DR PRINTS: PR00341; PRION.
DR PROSITE: PS00291; PRION_1; 1.
DR PROSITE: PS00706; PRION_2; 1.
KW Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
FT SIGNAL 1 22
FT CHAIN 23 230
FT PROPEP 231 253
FT LIPID 230 230
FT DISULFID 179 214
FT CARBOHYD 181 181
FT CARBOHYD 197 197
FT DOMAIN 51 91
FT REPEAT 51 59
FT REPEAT 60 67
FT REPEAT 68 75
FT REPEAT 76 83
FT REPEAT 84 91
SQ SEQUENCE 253 AA; 27633 MW; CF8F59F040996B74 CRC64;

Query Match          95.8%; Score 69; DB 1; Length 253;
Best Local Similarity 92.3%; Pred. No. 7.4e-06;
Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 CITOYERESQAY 13
DB 214 CITOYERESQAY 226

RESULT 13
PRIO_PONPY STANDARD; PRT; 253 AA.
AC P40256;
DT 01-FEB-1995 (Rel. 31, Created)
DT 01-FEB-1995 (Rel. 31, Last sequence update)
DT 01-OCT-1996 (Rel. 34, Last annotation update)
DE MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C).
GN PRNP.
OS Pongo pygmaeus (Orangutan).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Pongo.
OX NCBI_Taxid=9600;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE-95139066; PubMed-7837269;
RA Schatzl H.M., Dacosta M., Taylor L., Cohen F.E., Prusiner S.B.;
RT "Prion protein gene variation among primates.";
RL J. Mol. Biol. 245:362-374(1995).
CC -1- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC -1- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC "RODS".
CC -1- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC -1- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
CC ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
CC CRETZFELDT-JAKOB DISEASE (CJD), GERSTMAN-STRAUSSLER SYNDROME
CC (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC -1- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC -----
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CC -----

DR EMBL: U08305; AAC50093.1; -.

DR HSSP: P04925; IAG2.

DR InterPro: IPR000817; -.

DR Pfam: PF00377; prion.1.

DR PRINTS: PR00341; PRION.

DR PROSITE: PS00291; PRION_1; 1.

DR PROSITE: PS00706; PRION_2; 1.

KW prion; Brain; Glycoprotein; GPI-anchor; Repeat; signal.

FT SIGNAL 1 22

FT CHAIN 23 230

FT PROPEP 231 253

FT LIPID 230 230

FT DISULFID 179 214

FT CARBOHYD 181 181

FT CARBOHYD 197 197

FT DOMAIN 51 91

FT REPEAT 51 59

FT REPEAT 67 67

FT REPEAT 68 75

FT REPEAT 76 83

FT REPEAT 84 91

SQ SEQUENCE 253 AA; 27680 MW; A8D0E6972F1D5B26 CRC64;

Query Match

Best Local Similarity 95.8%; Score 69; DB 1; Length 253;

Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITORYORESAYV 13

DB 214 CITORYORESAYV 226

RESULT 14

PRO_CANFA STANDARD; PRT; 255 AA.

ID PRO_CANFA

AC 046501;

DT 15-JUL-1999 (Rel. 38, Created)

DT 15-JUL-1999 (Rel. 38, Last sequence update)

DT 15-JUL-1999 (Rel. 38, Last annotation update)

DE MAJOR PRION PROTEIN PRECURSOR (PRP).

GN PRNP OR PRP.

OS Canis familiaris (Dog).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.

OX NCBI_TaxID=9615;

RN [1]

RP SEQUENCE FROM N.A.

RA Rohwer R.G., Edelman D.;

RL Submitted (Sep-1997) to the EMBL/Genbank/DBJ databases.

CC -1- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.

CC -1- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED "RODS".

CC -1- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.

CC -1- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU, CRETZFEILD-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE), TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.

CC -1- SIMILARITY: BELONGS TO THE PRION FAMILY.

CC -----

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CC -----

DR EMBL: AF022714; AAB94585.1; -.

DR InterPro: IPR000817; -.

DR Pfam: PF00377; prion.1.

DR PRINTS: PR00341; PRION.

DR PROSITE: PS00291; PRION_1; 1.

DR PROSITE: PS00706; PRION_2; 1.

KW prion; Brain; Glycoprotein; GPI-anchor; Repeat; signal.

FT SIGNAL 1 24

FT CHAIN 25 255

FT DOMAIN 54 94

FT REPEAT 54 62

FT REPEAT 63 70

FT REPEAT 71 78

FT REPEAT 79 86

FT REPEAT 87 94

FT CARBOHYD 174 174

FT CARBOHYD 184 184

FT CARBOHYD 199 199

FT DISULFID 182 216

SQ SEQUENCE 255 AA; 27704 MW; 70E80411BD6B1F63 CRC64;

Query Match

Best Local Similarity 95.8%; Score 69; DB 1; Length 255;

Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITORYORESAYV 13

DB 216 CITORYORESAYV 228

RESULT 15

PRO_CEREL STANDARD; PRT; 256 AA.

ID PRO_CEREL

AC P79142; O62669;

DT 01-NOV-1997 (Rel. 35, Created)

DT 01-NOV-1997 (Rel. 35, Last sequence update)

DT 30-MAY-2000 (Rel. 39, Last annotation update)

DE MAJOR PRION PROTEIN PRECURSOR (PRP).

GN PRNP OR PRP.

OS Cervus elaphus (Red deer), and Cervus elaphus nelsoni (American elk).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Cervidae; Cervinae; Cervus.

OX NCBI_TaxID=9660, 9864;

RN [1]

RP SEQUENCE FROM N.A.

RA SPECIES=C. elaphus; TISSUE=Blood;

RX MEDLINE=98019099; PubMed=9358067;

RA Kaluz S., Kaluzova M., Flint A.P.;

RT "Sequencing analysis of prion genes from red deer and camel."

RL Gene 199:283-286(1997).

RN [2]

RP SEQUENCE FROM N.A.

RA SPECIES=C. nelsoni; TISSUE=Brain;

RX MEDLINE=98281723; PubMed=9620413;

RA O'Rourke K.I., Baszler T.V., Miller J.M., Spraker T.R., Sadler-Riggleman I., Knowles D.P.;

RT "Monoclonal antibody F89/160.1.5 defines a conserved epitope on the ruminant prion protein."

RL J. Clin. Microbiol. 36:1750-1755(1998).

CC -1- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.

CC -1- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED "RODS".

CC -1- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.

CC -1- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU, CRETZFEILD-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),

	CC	TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
	CC	-I- SIMILARITY: BELONGS TO THE PRION FAMILY.
	CC	-----
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	CC	or send an email to license@isb-sib.ch).
	CC	-----
	DR	EMBL; Y09761; CAA70902.1; "-
	DR	EMBL; AF016227; AAC12860.2; "-
	DR	HSSP; P04925; IAG2.
	DR	InterPro: IPR000817; -
	DR	Pfam: PF00377; Prion_1.
	DR	PRINTS; PR00341; PRION.
	DR	PROSITE; PS00291; PRION_1; 1.
	DR	PROSITE; PS00706; PRION_2; 1.
	KW	Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
	FT	SIGNAL 1 24
	FT	CHAIN 25 256
	FT	CARBOHYD 184 184
	FT	CARBOHYD 200 200
	FT	DISULFID 182 217
	FT	DOMAIN 54 95
	FT	REPEAT 54 62
	FT	REPEAT 63 70
	FT	REPEAT 71 78
	FT	REPEAT 79 86
	FT	REPEAT 87 95
	SO	SEQUENCE 256 AA; 27935 MW; E54EB12IDE02E1E5 CRC64;
Oy	1	CITORYRESQAYV 13
		!!!!!!
Db	217	CITORYRESQAYV 229
		Query Match 95.8%; Score 69; DB 1; Length 256;
		Best Local Similarity 92.3%; Pred. No. 7.5e-06;
		Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Search completed: October 25, 2001, 08:56:08
Job time: 271 sec

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GenCore version 4.5
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OM protein - protein search, using sw model

Run on: October 25, 2001, 08:51:37 ; Search time 12.68 Seconds
(without alignments)
35.120 Million cell updates/sec

Title: US-09-576-724-1
Sequence: 1 CITOYERESQAYY 13

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 93435 seqs, 34255486 residues

Total number of hits satisfying chosen parameters: 93435

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Listing first 45 summaries

Database : SwissProt_39:*

Prod. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	72	100.0	232	1	P40246 ateles geof
2	72	100.0	252	1	P51446 ateles panl
3	72	100.0	252	1	P40249 cebus apell
4	72	100.0	253	1	P40252 gorilla gor
5	72	100.0	253	1	P04156 homo sapien
6	72	100.0	253	1	P40253 pan troglod
7	72	100.0	253	1	P40256 pongo pygma
8	69	95.8	238	1	P40245 aotus trivl
9	69	95.8	239	1	P40248 callicebus
10	69	95.8	241	1	P40245 aotus trivl
11	69	95.8	241	1	P40255 mandrillus
12	69	95.8	245	1	P40250 cercopithec
13	69	95.8	246	1	P40250 cercopithec
14	69	95.8	246	1	P40250 cercopithec
15	69	95.8	246	1	P40250 cercopithec
16	69	95.8	252	1	P40247 callithrix
17	69	95.8	253	1	P40251 colobus que
18	69	95.8	253	1	P40254 macaca fasc
19	69	95.8	253	1	P40257 presbytis f
20	69	95.8	256	1	P52113 capra hircu
21	69	95.8	256	1	P47852 odocoileus
22	69	95.8	256	1	P23907 ovis aries
23	69	95.8	256	1	P01880 bos taurus
24	69	95.8	260	1	P40258 salmatti sci
25	69	95.8	264	1	P10279 bos taurus
26	66	91.7	238	1	P095270 theopithec
27	66	91.7	255	1	P046501 canus faml
28	66	91.7	256	1	P79142 cervus elap
29	66	91.7	256	1	P40243 tregelaphus
30	66	91.7	264	1	P40242 tregelaphus
31	65	90.3	254	1	P060506 cricetus
32	65	90.3	254	1	P060468 cricetus
33	65	90.3	254	1	P04925 mus musculu

ALIGNMENTS

RESULT	ID	PRIO_ATEGE	STANDARD	PRT	232 AA.
34	65	90.3	254	1	P13852 ratu
35	65	90.3	257	1	P40244 mus
36	62	86.1	256	1	P018754 felis
37	61	84.7	254	1	P04273 mesoc
38	61	84.7	257	1	P52114 mus
39	56	77.8	252	1	P095211 orycto
40	54	75.0	255	1	P79141 cam
41	50	69.4	257	1	P49927 sus
42	42	58.3	1030	1	P39774 bac
43	40	55.6	259	1	P51780 trich
44	38	52.8	302	1	P43821 haem
45	38	52.8	303	1	P00960 esche

PRIO_ATEGE	1	PRIO_ATEGE	STANDARD	PRT	232 AA.
AC	P40246;				
DT	01-FEB-1995 (Rel. 31, Created)				
DT	01-FEB-1995 (Rel. 31, Last sequence update)				
DT	01-OCT-1996 (Rel. 34, Last annotation update)				
DE	MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C) (F.W. INVENT).				
GN	PRNP.				
OS	Ateles Geoffroyi (Black-handed spider monkey).				
OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;				
OC	Mammalia; Eutheria; Primates; Platyrrhini; Cebidae; Ateles.				
OX	NCBI_TaxID=9509;				
RP	[1]				
RX	SEQUENCE FROM N.A. MEDLINE=95139066; PubMed=7837269;				
RA	Schatzli H.M., Dacosta M., Taylor L., Cohen F.E., Prusiner S.B.;				
RT	"Prion protein gene variation among primates."				
RL	J. Mol. Biol. 245:362-374(1995).				
CC	- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE				
CC	HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.				
CC	- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS, CALLED				
CC	"RODS".				
CC	- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.				
CC	- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND				
CC	ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,				
CC	CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME				
CC	(GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),				
CC	TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.				
CC	- SIMILARITY: BELONGS TO THE PRION FAMILY.				
CC	- This SWISS-PROT entry is copyright. It is produced through a collaboration				
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CC	the European Bioinformatics Institute. There are no restrictions on its				
CC	use by non-profit institutions as long as its content is in no way				
CC	modified and this statement is not removed. Usage by and for commercial				
CC	entities requires a license agreement (See http://www.isb-sib.ch/announce/				
CC	or send an email to license@sib-sib.ch).				
DR	EMBL: U08309; AAC50097.1; -				
DR	HSSP: P04925; IAG2.				
DR	InterPro: IPR000817; -				
DR	Pfam: PF00377; prion.1.				
DR	PROSITE: PS00291; PRION_1.				
DR	PROSITE: PS00706; PRION_2.				
KW	Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.				
FT	NON-TER	1	1		
FT	SIGNAL	<1	15		
FT	CHAIN	16	214		
FT	PROPEP	215	>232		
FT	LIPID	214	214		
FT	DISULFID	163	198		
FT	CARBOHYD	165	165		
FT	CARBOHYD	181	181		
FT	DOMAIN	44	84		

BY SIMILARITY.
MAJOR PRION PROTEIN.
REMOVED IN MATURE FORM (BY SIMILARITY).
GPI-ANCHOR (BY SIMILARITY).
BY SIMILARITY.
N-LINKED (GLCNAC. . .) (POTENTIAL).
N-LINKED (GLCNAC. . .) (POTENTIAL).
4 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-G.

```

FT REPEAT 44 51 1.
FT REPEAT 52 59 2.
FT REPEAT 60 67 3.
FT REPEAT 68 75 4.
FT NON_TER 232 232
SQ SEQUENCE 232 AA; 25596 MW; 0E2D75F04C05CC4A CRC64;

Query Match
Best Local Similarity 100.0%; Score 72; DB 1; Length 232;
Pred. No. 1.9e-06;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1 CITOYERESQAY 13
Db 198 CITOYERESQAY 210

RESULT 2
PRIO_ATEPA STANDARD; PRT; 252 AA.
ID AC P51446;
DT 01-OCT-1996 (Rel. 34, Created)
DT 01-OCT-1996 (Rel. 34, Last sequence update)
DE 01-OCT-1996 (Rel. 34, Last annotation update)
DE MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C).
GN PRNP.
OS Ateles paniscus (Black spider monkey).
OC Eukaryota; Metazoa; Chordata; Craniata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Platyrrhini; Cebidae; Ateles.
OX NCBI_TaxID=9510;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=95083661; PubMed=7991600;
RC TISSUE=Brain;
RA Cevenakova L., Brown P., Goldfarb L.G., Nagle J., Pettione K.,
RA Rubenstein R., Dubnick M., Gibbs C.J., Gajdusek D.C.;
RT "Infectious amyloid precursor gene sequences in primates used for
RT experimental transmission of human spongiform encephalopathy.";
RL Proc. Natl. Acad. Sci. U.S.A. 91:12159-12162(1994).
CC -1- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC -1- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC "RODS".
CC -1- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC -1- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
CC ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
CC CRUZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC (GSS), SCRAPE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC -1- SIMILARITY: BELONGS TO THE PRION FAMILY.
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CC -----
DR EMBL: U15164; AAA68634.1; -.
DR HSSP: P04925; IAG2.
DR InterPro: IPR000817; -.
DR Pfam: PF00377; Prion. 1.
DR PRINTS: PR00341; PRION. 1.
DR PROSITE: PS00291; PRION. 1; 1.
DR PROSITE: PS00706; PRION. 2; 1.
KW Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
FT SIGNAL 1 22
FT CHAIN 23 229
FT PROPEP 230 252 MAJOR PRION PROTEIN.
FT LIPID 229 229 REMOVED IN MATURE FORM (BY SIMILARITY).
FT DISULFID 178 213 GPI-ANCHOR (BY SIMILARITY).
FT CARBOHYD 180 180 BY SIMILARITY.
FT N-LINKED (GLCNAC. . .) (POTENTIAL).

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FT CARBOHYD 196 196 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT DOMAIN 51 90 5 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-
FT REPEAT 51 58 0.
FT REPEAT 59 66 1.
FT REPEAT 67 74 2.
FT REPEAT 75 82 3.
FT REPEAT 83 90 4.
FT REPEAT 83 90 5.
SQ SEQUENCE 252 AA; 27718 MW; 20EA38A42DCC56D1 CRC64;

Query Match
Best Local Similarity 100.0%; Score 72; DB 1; Length 252;
Pred. No. 1.9e-06;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1 CITOYERESQAY 13
Db 213 CITOYERESQAY 225

RESULT 3
PRIO_CEBAP STANDARD; PRT; 252 AA.
ID AC P40249;
DT 01-FEB-1995 (Rel. 31, Created)
DT 01-FEB-1995 (Rel. 31, Last sequence update)
DT 01-OCT-1996 (Rel. 34, Last annotation update)
DE MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C).
GN PRNP.
OS Cebus apella (Brown-capped capuchin).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Platyrrhini; Cebidae; Cebus.
OX NCBI_TaxID=9515;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=95139066; PubMed=7837269;
RA Schatzl H.M., Dacosta M., Taylor L., Cohen F.E., Prusiner S.B.;
RT "Prion protein gene variation among primates.";
RL J. Mol. Biol. 245:362-374(1995).
CC -1- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC -1- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC "RODS".
CC -1- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC -1- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
CC ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
CC CRUZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC (GSS), SCRAPE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC -1- SIMILARITY: BELONGS TO THE PRION FAMILY.
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CC or send an email to license@isb-sib.ch).
CC -----
DR EMBL: U08295; AAC50084.1; -.
DR HSSP: P04925; IAG2.
DR InterPro: IPR000817; -.
DR Pfam: PF00377; Prion. 1.
DR PRINTS: PR00341; PRION. 1.
DR PROSITE: PS00291; PRION. 1; 1.
DR PROSITE: PS00706; PRION. 2; 1.
KW Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
FT SIGNAL 1 22
FT CHAIN 23 229
FT PROPEP 230 252 MAJOR PRION PROTEIN.
FT LIPID 229 229 REMOVED IN MATURE FORM (BY SIMILARITY).
FT DISULFID 178 213 GPI-ANCHOR (BY SIMILARITY).
FT CARBOHYD 180 180 BY SIMILARITY.
FT N-LINKED (GLCNAC. . .) (POTENTIAL).

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FT CARBOHYD 196 196 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT DOMAIN 51 90 5 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-
FT REPEAT 51 58 0.
FT REPEAT 59 66 1.
FT REPEAT 67 74 2.
FT REPEAT 75 82 3.
FT REPEAT 83 90 4.
FT REPEAT 83 90 5.
SQ SEQUENCE 252 AA; 27579 MW; A2DFCA0AD26D7821 CRC64;

Query Match 100.0%; Score 72; DB 1; Length 252;
Best Local Similarity 100.0%; Pred. No. 1.9e-06;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CITORYERESQAVY 13
    |||||
DB 213 CITORYERESQAVY 225

RESULT 4
PRIO_GORGO STANDARD; PRT; 253 AA.
AC P40252; Q28419;
DT 01-FEB-1995 (Rel. 31, Created)
DT 01-FEB-1995 (Rel. 31, Last sequence update)
DT 15-JUL-1998 (Rel. 36, Last annotation update)
DE MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C).
GN PRNP.
OS Gorilla gorilla gorilla (Lowland gorilla).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Homiidae; Gorilla.
OX NCBI_TaxID=9595;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=95139066; PubMed=7837269;
RA Schatzl H.M., Dacosta M., Taylor L., Cohen F.E., Prusiner S.B.;
RT "Prion protein gene variation among primates.";
RL J. Mol. Biol. 245:362-374(1995).
RN [2]
RP SEQUENCE FROM N.A.
RX TISSUE=Blood;
RC MEDLINE=95083661; PubMed=7991600;
RA Cervenakova L., Brown P., Goldfarb L.G., Nagle J., Petrone K.,
RA Rubenstein R., Dubnick M., Gibbs C.J., Gajdusek D.C.;
RT "Infectious amyloid precursor gene sequences in primates used for
experimental transmission of human spongiform encephalopathy.";
RL Proc. Natl. Acad. Sci. U.S.A. 91:12159-12162(1994).
CC -1- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC -1- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC "RODS".
CC -1- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC -1- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
CC ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
CC CREEFTFEILT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC -1- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC -----
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CC dr send an email to license@isb-sib.ch).
CC -----
CC EMBL: U08300; AAC50089.1; -
CC EMBL: U15166; AAA68633.1; -
CC HSSP: P04925; IAG2.
CC InterPro: IPR000817; -
CC Pfam: PF00377; prion; 1.

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DR PRINTS: PR00341; PRION.
DR PROSITE: PS00706; PRION_1; 1.
DR PROSITE: PS00706; PRION_2; 1.
KW Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
FT SIGNAL 1 22
FT CHAIN 23 230
FT PROPEP 231 253
FT LIPID 230 230
FT DISULFID 179 214
FT CARBOHYD 181 181
FT CARBOHYD 197 197
FT DOMAIN 51 91
FT REPEAT 51 59
FT REPEAT 60 67
FT REPEAT 68 75
FT REPEAT 76 83
FT REPEAT 84 91
FT CONFLICT 6 6
SQ SEQUENCE 253 AA; 27660 MW; E28F4C3FA8CA49E CRC64;
    C -> Y (IN REF. 2).

Query Match 100.0%; Score 72; DB 1; Length 253;
Best Local Similarity 100.0%; Pred. No. 1.9e-06;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CITORYERESQAVY 13
    |||||
DB 214 CITORYERESQAVY 226

RESULT 5
PRIO_HUMAN STANDARD; PRT; 253 AA.
AC P04156;
DT 01-NOV-1986 (Rel. 03, Created)
DT 01-NOV-1986 (Rel. 03, Last sequence update)
DT 01-OCT-2000 (Rel. 40, Last annotation update)
DE MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C) (ASCR).
GN PRNP.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Homiidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=86300093; PubMed=3755672;
RA Kretzschmar H.A., Stowring L.E., Westaway D., Stubblefield W.H.,
RA Prusiner S.B., Dearmond S.J.;
RT "Molecular cloning of a human prion protein cDNA.";
RL DNA 5:315-324(1986).
RN [2]
RP SEQUENCE OF 8-253 FROM N.A.
RX MEDLINE=86261778; PubMed=3014653;
RA Liao Y.-C.J., Lebo R.V., Clawson G.A., Smuckler E.A.;
RT "Human prion protein cDNA: molecular cloning, chromosomal mapping,
RT and biological implications.";
RL Science 235:364-367(1986).
RN [3]
RP SEQUENCE OF 58-85 AND 111-150 (VARIANT AMYLOID GSS).
RX MEDLINE=91160504; PubMed=1672107;
RA Tagliavini F., Prelli F., Ghiso J., Bugiani O., Serban D.,
RA Prusiner S.B., Farlow M.R., Ghetti B., Frangione B.;
RT "Amyloid protein of Gerstmann-Strussler-Scheinker disease (Indiana
RT kindred) is an 11 kd fragment of prion protein with an N-terminal
RT glycine at codon 58.";
RL EMBO J. 10:513-519(1991).
RN [4]
RP REVIEW ON VARIANTS.
RX MEDLINE=93372867; PubMed=8364585;
RA Palmer M.S., Collinge J.;
RT "Mutations and polymorphisms in the prion protein gene.";
RL Hum. Mutat. 2:168-173(1993).

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RN [5]
 RP REVIEW ON VARIANTS.
 RX MEDLINE=94029646; PubMed=8105771;
 RA Prusiner S.B.;
 RT "Genetic and infectious prion diseases."
 RL Arch. Neurol. 50:1129-1153(1993).
 RN [6]
 RP VARIANT GSS LEU-102.
 RX Hsiao K., Baker H.F., Crow T.J., Poulter M., Owen F.,
 RA Teweliller J.D., Westaway D., Ott J., Prusiner S.B.;
 RT "Linkage of a prion protein missense variant to Gerstmann-Strausler
 syndrome."
 RL Nature 338:342-345(1989).
 RN [7]
 RP VARIANTS LEU-102; VAL-117 AND VAL-129.
 RX MEDLINE=89392018; PubMed=2783132;
 RA Don-ura K., Tateishi J., Sasaki H., Kitamoto T., Sasaki Y.;
 RT "Pro->Leu change at position 102 of prion protein is the most
 common but not the sole mutation related to Gerstmann-Strausler
 syndrome."
 RL Biochem. Biophys. Res. Commun. 163:974-979(1989).
 RN [8]
 RP VARIANT FFI ASN-178.
 RX MEDLINE=92193483; PubMed=1347910;
 RA Mead R., Montagna P., Tritschler H.J., Leblanc A., Cortelli P.,
 RA Tinuper P., Lugaresi E., Gambetti P.;
 RT "Fatal familial insomnia: a second kindred with mutation of prion
 protein gene at codon 178."
 RL Neurology 42:669-670(1992).
 RN [9]
 RP VARIANT CJD ASN-178.
 RX MEDLINE=91124933; PubMed=1671440;
 RA Goldfarb L.G., Haltia M., Brown P., Nieto A., Kovanen J.,
 RA McCombie W.R., Trapp S., Gajdusek D.C.;
 RT "New mutation in scrapie amyloid precursor gene (at codon 178) in
 Finnish Creutzfeldt-Jakob kindred."
 RL Lancet 337:425-425(1991).
 RN [10]
 RP VARIANT CJD LYS-200.
 RX MEDLINE=90355709; PubMed=1975028;
 RA Goldfarb L., Mitrova E., Brown P., Toh B.K., Gajdusek D.C.;
 RT "Mutation in codon 200 of scrapie amyloid protein gene in two clusters
 of Creutzfeldt-Jakob disease in Slovakia."
 RL Lancet 336:514-515(1990).
 RN [11]
 RP VARIANT GSS ARG-217.
 RX MEDLINE=93250977; PubMed=1363810;
 RA Hsiao K., Dlouhy S.R., Farlow M.R., Cass C., da Costa M.,
 RA Conneally P.M., Hodes M.E., Ghetti B., Prusiner S.B.;
 RT "Mutant prion proteins in Gerstmann-Strausler-Scheinker disease with
 neurofibrillary tangles."
 RL Nat. Genet. 1:68-71(1992).
 RN [12]
 RP VARIANTS CJD ILE-180 AND ARG-232.
 RX MEDLINE=93213314; PubMed=8461023;
 RA Kitamoto T., Ohta M., Doh-ura K., Hitoshi S., Terao Y., Tateishi J.;
 RT "Novel missense variants of prion protein in Creutzfeldt-Jakob
 disease or Gerstmann-Strausler syndrome."
 RL Biochem. Biophys. Res. Commun. 191:709-714(1993).
 RN [13]
 RP VARIANT CJD ILE-210.
 RX MEDLINE=94071412; PubMed=7902693;
 RA Pocchiarri M., Salvatore M., Cutruzzola F., Genuardi M.,
 RA Alcatelli C.T., Masullo G., Macchi G., Alema G., Galgani S., Xi Y.G.,
 RA Petrarioli R., Silvestrini M.C., Brunori M.;
 RT "A new point mutation of the prion protein gene in Creutzfeldt-Jakob
 disease."
 RL Ann. Neurol. 34:802-807(1993).
 RN [14]
 RP VARIANT GSS LEU-105.
 RX MEDLINE=94077414; PubMed=7902972;
 RA Yamada M., Itoh Y., Fujigasaki H., Naruse S., Kaneko K., Kitamoto T.,

RA Tateishi J., Otomo E., Hayakawa M., Tanaka J., Matsushita M.,
 RA Miyake T.;
 RT "A missense mutation at codon 105 with codon 129 polymorphism of the
 prion protein gene in a new variant of Gerstmann-Strausler-Scheinker
 disease."
 RL Neurology 43:2723-2724(1993).
 RN [15]
 RP VARIANT GSS LEU-105.
 RX MEDLINE=95213742; PubMed=7699395;
 RA Itoh Y., Yamada M., Hayakawa M., Shozawa T., Tanaka J., Matsushita M.,
 RA Kitamoto T., Tateishi J., Otomo E.;
 RT "A variant of Gerstmann-Strausler-Scheinker disease carrying codon
 105 mutation with codon 129 polymorphism of the prion protein gene: a
 clinicopathological study."
 RL J. Neurol. Sci. 127:77-86(1994).
 RN [16]
 RP VARIANT CJD LYS-200.
 RX MEDLINE=94142912; PubMed=7906019;
 RA Inoue I., Kitamoto T., Doh-ura K., Shi H., Goto I., Tateishi J.;
 RT "Japanese family with Creutzfeldt-Jakob disease with codon 200 point
 mutation of the prion protein gene."
 RL Neurology 44:299-301(1994).
 RN [17]
 RP VARIANT CJD LYS-200.
 RX MEDLINE=94316708; PubMed=7913755;
 RA Gabizon R., Rosenman H., Weiner Z., Kahana I., Kahana E., Shugart Y.,
 RA Ott J., Prusiner S.B.;
 RT "Mutation in codon 200 and polymorphism in codon 129 of the prion
 protein gene in Libyan Jews with Creutzfeldt-Jakob disease."
 RL Philos. Trans. R. Soc. Lond. B, Biol. Sci. 343:585-590(1994).
 RN [18]
 RP VARIANT GSS LEU-102.
 RX MEDLINE=95303274; PubMed=7783876;
 RA Young K., Jones C.K., Piccardo P., Lazzarini A., Golbe L.I.,
 RA Zimmerman T.R., Dickson D.W., McLachlan D.C., St George-Hyslop P.H.,
 RA Lennox A., Strausler-Scheinker disease with mutation at codon 102
 and methionine at codon 129 of PrNP in previously unreported
 patients."
 RL Neurology 45:1127-1134(1995).
 RN [19]
 RP VARIANT GSS LEU-102, AND VARIANT LYS-219.
 RX MEDLINE=96390486; PubMed=8797472;
 RA Barbanti P., Fabbrini G., Salvatore M., Petrarioli R., Cardone F.,
 RA Maras B., Equestre M., Macchi G., Lenzi G.L., Pocchiarri M.;
 RT "Polymorphism at codon 129 or codon 219 of PrNP and clinical
 heterogeneity in a previously unreported family with Gerstmann-
 Strausler-Scheinker disease (PrP-Pl02L mutation)."
 RL Neurology 47:734-741(1996).
 RN [20]
 RP VARIANT CJD HIS-208.
 RX MEDLINE=97065966; PubMed=8909447;
 RA Mastrianni J.A., Iannicola C., Myers R.M., Dearmond S., Prusiner S.B.;
 RT "Mutation of the prion protein gene at codon 208 in familial
 Creutzfeldt-Jakob disease."
 RL Neurology 47:1305-1312(1996).
 RN [21]
 RP VARIANT CJD HIS-208.
 RX MEDLINE=97410007; PubMed=9266722;
 RA Nitriti R., Rosemberg S., Passos-Bueno M.R., da Silva L.S.,
 RA Tugheiti P., Papadopoulos M., Carrilho P.M., Caramelli P.,
 RA Albrecht S., Zatz M., Leblanc A.;
 RT "Familial spongiform encephalopathy associated with a novel prion
 protein gene mutation."
 RL Ann. Neurol. 42:138-146(1997).
 RN [22]
 RP VARIANT SCHIZOAFFECTIVE DISORDER SER-171.
 RX MEDLINE=98044028; PubMed=9384372;
 RA Sanaia H.B., Mari J.J., Vallada H.P., Moura R.P., Simpson A.J.G.,
 RA Brentani R.R.;
 RT "A prion-linked psychiatric disorder."
 RL Nature 390:241-241(1997).
 RN [23]

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CC EMBL; U08305; AAC50093.1; -.
DR HSSP; P04925; 1AG2.
DR InterPro; IPR000817; -.
DR Pfam; PF00377; PRion; 1.
DR PRINTS; PRO0341; PRION.
DR PROSITE; PS00291; PRION_1; 1.
DR PROSITE; PS00706; PRION_2; 1.
KW Prion; Brain; Glycoprotein; GPI-anchor; Repeat; signal.
FT SIGNAL 1 22
FT CHAIN 23 230 MAJOR PRION PROTEIN.
FT PROPEP 231 253 REMOVED IN MATURE FORM (BY SIMILARITY).
FT LIPID 230 230 GPI-ANCHOR (BY SIMILARITY).
FT DISULFID 179 214 BY SIMILARITY.
FT CARBOHYD 181 181 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT CARBOHYD 197 197 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT DOMAIN 51 91 5 X 8 AA TANDem REPEATS OF P-H-G-G-G-W-G-
FT REPEAT 51 59 0.
FT REPEAT 60 67 1.
FT REPEAT 68 75 2.
FT REPEAT 76 83 3.
FT REPEAT 84 91 4.
FT REPEAT 84 91 5.
SQ SEQUENCE 253 AA; 27680 MW; A8D0E6972F1D5B26 CRC64;

Query Match 100.0%; Score 72; DB 1; Length 253;
Best Local Similarity 100.0%; Pred. No. 1,9e-06;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITOYERESQAY 13
Db 214 CITOYERESQAY 226
|||||

RESULT 8
PRIO_CERAT STANDARD. PRT. 238 AA.
PRIO_CERAT
AC 095145; 095200;
DT 01-NOV-1997 (Rel. 35, Created)
DT 01-NOV-1997 (Rel. 35, Last sequence update)
DT 15-JUL-1998 (Rel. 36, Last annotation update)
DE MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C) (FRAGMENT).
GN PRNP.
OS Cercopithecus aethiops, and Macaca sylvanus (Barbary ape).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Cercopitheidae;
OC Cercopitheciae; Cercopithecidae.
OX NCBI_TaxID=36222, 9546;
RN [1]
RP SEQUENCE FROM N.A.
RA der Kuyt A.C., Dekker J.T., Goudsmit J.;
RL submitted (NOV-1996) to the EMBL/Genbank/DBJ databases.
CC -I- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC -I- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC "RODS".
CC -I- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC -I- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
CC ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASE KURU,
CC CRUFT/FIELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC -I- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC -----
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CC or send an email to license@sb-sib.ch).
CC -----
CC DR EMBL; U75384; AAB50623.1; -.
CC DR EMBL; U75382; AAB50629.1; -.
CC DR HSSP; P04925; IAG2.
CC DR InterPro; IPR000817; -.
CC DR Pfam; PF00377; PRion; 1.
CC DR PROSITE; PS00291; PRion_1; 1.
CC DR PROSITE; PS00706; PRion_2; 1.
CC KW PRion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
CC FT NON_TER 1 1
CC FT SIGNAL <1 15 BY SIMILARITY.
CC FT CHAIN 16 215 MAJOR PRION PROTEIN.
CC FT PROPEP 216 238 REMOVED IN MATURE FORM (BY SIMILARITY).
CC FT LEIPD 215 215 GPI-ANCHOR (BY SIMILARITY).
CC FT DISULFID 164 199 BY SIMILARITY.
CC FT CARBOHYD 166 166 N-LINKED (GLCNAC. . .) (POTENTIAL).
CC FT CARBOHYD 182 182 N-LINKED (GLCNAC. . .) (POTENTIAL).
CC FT CARBOHYD 44 76 5 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-
CC FT DOMAIN
CC FT REPEAT 44 52 0.
CC FT REPEAT 53 60 1.
CC FT REPEAT 61 68 2.
CC FT REPEAT 69 71 3.
CC FT REPEAT 71 76 4.
CC FT REPEAT 71 76 5.
CC SQ SEQUENCE 238 AA; 26123 MW; 5F59A3EBC3E3531B CRC64;
CC
CC Query Match 95.8%; Score 69; DB 1; Length 238;
CC Best Local Similarity 92.3%; Pred. No. 6,7e-06;
CC Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
CC
CC 1 CITOYERESQAY 13
CC Db 199 CITOYERESQAY 211
CC
CC RESULT 9
CC ID PRIO_AOTTR STANDARD: PRT; 239 AA.
CC AC P40245;
CC DT 01-FEB-1995 (Rel. 31, Created)
CC DT 01-FEB-1995 (Rel. 31, Last sequence update)
CC DT 01-NOV-1995 (Rel. 32, Last annotation update)
CC DE MAJOR PRION PROTEIN PRECURSOR (PRP) (PR27-30) (PRP33-35C) (FRAGMENT).
CC GN PRNP.
CC OS Aotus trivirgatus (Night monkey) (Douroucoulli).
CC OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
CC OC Mammalia; Eutheria; Primates; Platyrrhini; Cebidae; Aotinae; Aotus.
CC OC NCBI_TaxID=9505;
CC RN [1]
CC RP SEQUENCE FROM N.A.
CC RX MEDLINE=95139066; PubMed=7837269;
CC RT Schatzl H.M., Da Costa M., Taylor L., Cohen F.E., Prusiner S.B.;
CC RT "Prion protein gene variation among primates.";
CC RL J. Mol. Biol. 245:362-374(1995).
CC CC -1- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC CC HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC CC -1- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC CC "RODS".
CC CC -1- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC CC -1- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
CC CC ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
CC CC CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC CC (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC CC TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC CC -1- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC CC -----
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CC CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
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CC CC use by non-profit institutions as long as its content is in no way
CC CC modified and this statement is not removed. Usage by and for commercial

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CC -----

DR EMBL: U08293; AAC50082.1; -

DR HSSP: P04925; IAG2.

DR InterPro: IPR000817; -

DR Pfam: PF00377; prion.1.

DR PROSITE: PS00291; prion.1; 1.

DR PROSITE: PS00706; prion.2; 1.

KW prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.

FT NON_TER 1 1

FT SIGNAL <1 15 BY SIMILARITY.

FT CHAIN 16 >239 MAJOR PRION PROTEIN.

FT DISULFID 171 206 BY SIMILARITY.

FT CARBOHYD 173 173 N-LINKED (GLCNAC. . .) (POTENTIAL).

FT CARBOHYD 189 189 N-LINKED (GLCNAC. . .) (POTENTIAL).

FT DOMAIN 44 83 5 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-

FT REPEAT 44 51 0.

FT REPEAT 52 59 1.

FT REPEAT 60 67 2.

FT REPEAT 68 75 3.

FT REPEAT 76 83 4.

FT REPEAT 77 84 5.

FT NON_TER 239 239

FT SEQUENCE 239 AA; 26246 MW; 2EFB77E354B702AA CRC64;

Query Match 95.8%; Score 69; DB 1; Length 239;
Best Local Similarity 92.3%; Pred. No. 6.8e-06;
Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITOVERESOVARY 13
|||||:|||||

Db 206 CITOVERESOVARY 218

RESULT 10

PRIO_CALMO STANDARD; PRT; 241 AA.

AC P40248;

DT 01-FEB-1995 (Rel. 31, Created)

DT 01-FEB-1995 (Rel. 31, Last sequence update)

DT 01-NOV-1995 (Rel. 32, Last annotation update)

DE MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C) (FRAGMENT).

GN PRNP.

OS Callicebus moloch (Dusky titi).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Primates; Platyrrhini; Cebidae; Callitrichinae;

OC Callitrichus.

OX NCBI_TaxID=9523;

RN [1]

RP SEQUENCE FROM N.A.

RA MEDLINE-95139066; PubMed-7837269;

RA Schatzl H.M., Dacosta M., Taylor L., Cohen F.E., Prusiner S.B.;

RT "Prion protein gene variation among primates.";

RT J. Mol. Biol. 245:362-374(1995).

CC -1- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.

CC -1- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED "RODS".

CC -1- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.

CC -1- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU, CRETZFEILD-JAKOB DISEASE (CJD), GERSTMAN-STRAUSSLER SYNDROME (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE), TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.

CC -1- SIMILARITY: BELONGS TO THE PRION FAMILY.

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CC -----

DR EMBL: U08312; AAC50100.1; -

DR HSSP: P04925; IAG2.

DR InterPro: IPR000817; -

DR Pfam: PF00377; prion.1.

DR PROSITE: PS00291; prion.1; 1.

DR PROSITE: PS00706; prion.2; 1.

KW prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.

FT NON_TER 1 1

FT SIGNAL <1 15 BY SIMILARITY.

FT CHAIN 16 >241 MAJOR PRION PROTEIN.

FT DISULFID 172 207 BY SIMILARITY.

FT CARBOHYD 174 174 N-LINKED (GLCNAC. . .) (POTENTIAL).

FT CARBOHYD 190 190 N-LINKED (GLCNAC. . .) (POTENTIAL).

FT DOMAIN 44 84 5 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-

FT REPEAT 44 52 0.

FT REPEAT 53 60 1.

FT REPEAT 61 68 2.

FT REPEAT 69 76 3.

FT REPEAT 77 84 4.

FT REPEAT 78 85 5.

FT NON_TER 241 241

FT SEQUENCE 241 AA; 26373 MW; C6D2013EE7CAEC93 CRC64;

Query Match 95.8%; Score 69; DB 1; Length 241;
Best Local Similarity 92.3%; Pred. No. 6.8e-06;
Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITOVERESOVARY 13
|||||:|||||

Db 207 CITOVERESOVARY 219

RESULT 11

PRIO_MANSP STANDARD; PRT; 241 AA.

AC P40255;

DT 01-FEB-1995 (Rel. 31, Created)

DT 01-FEB-1995 (Rel. 31, Last sequence update)

DT 01-OCT-1996 (Rel. 34, Last annotation update)

DE MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C) (FRAGMENT).

GN PRNP.

OS Mandillus sphinx (Mandrill) (Papio sphinx).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Primates; Catarrhini; Cercopithecoidea;

OC Cercopithecinae; Mandrillus.

OX NCBI_TaxID=9561;

RN [1]

RP SEQUENCE FROM N.A.

RA MEDLINE-95139066; PubMed-7837269;

RA Schatzl H.M., Dacosta M., Taylor L., Cohen F.E., Prusiner S.B.;

RT "Prion protein gene variation among primates.";

RT J. Mol. Biol. 245:362-374(1995).

CC -1- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.

CC -1- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED "RODS".

CC -1- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.

CC -1- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU, CRETZFEILD-JAKOB DISEASE (CJD), GERSTMAN-STRAUSSLER SYNDROME (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE), TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.

CC -1- SIMILARITY: BELONGS TO THE PRION FAMILY.

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CC -----

DR EMBL; U08303; AAC50091.1; -

DR HSSP; P04925; IAG2.

DR InterPro: IPR000817; -

DR Pfam; PF00377; Prion_1; 1.

DR PROSITE; PS00291; PRION_1; 1.

DR PROSITE; PS00706; PRION_2; 1.

KW Prion; Glycoprotein; GPI-anchor; Repeat; Signal.

FT NON_TER 1 1

FT SIGNAL <1 15 BY SIMILARITY.

FT CHAIN 16 223 MAJOR PRION PROTEIN.

FT PROPEP 224 >241 REMOVED IN MATURE FORM (BY SIMILARITY).

FT LIPID 223 223 GPI-ANCHOR (BY SIMILARITY).

FT DISULFID 172 207 BY SIMILARITY.

FT CARBOHYD 174 174 N-LINKED (GLCNAC. . .) (POTENTIAL).

FT CARBOHYD 190 190 N-LINKED (GLCNAC. . .) (POTENTIAL).

FT DOMAIN 44 84 5 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-

FT REPEAT 44 52 0.

FT REPEAT 53 60 1.

FT REPEAT 61 68 2.

FT REPEAT 69 76 3.

FT REPEAT 77 84 4.

FT NON_TER 241 241 5.

FT SEQUENCE 241 AA; 26398 MW; E539D84E2B59DE CRC64;

Query Match 95.8%; Score 69; DB 1; Length 241;
Best Local Similarity 92.3%; Pred. No. 6.8e-06;
Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITORYERESQAYV 13
|||||:|||||

Db 207 CITORYERESQAYV 219

RESULT 12
PRIO_CERAE STANDARD; PRT; 245 AA.

ID PRIO_CERAE

AC P40250;

DT 01-FEB-1995 (Rel. 31, Created)

DT 01-FEB-1995 (Rel. 31, Last sequence update)

DT 01-OCT-1996 (Rel. 34, Last annotation update)

DE MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C).
PRNP.

GN Cercopithecus aethiops (Green monkey) (Grivet), and

OS Cercopithecus dianeae.

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;

OC Cercopithecinae; Cercopithecus.

OX NCBI_TaxID=9534, 36224;

RN [1]

RP SEQUENCE FROM N.A.

RX MEDLINE=95138066; PubMed=7837269;

RA Schatzl H.M., Decosta M., Taylor L., Cohen F.E., Prusiner S.B.;

RT "Prion protein gene variation among primates.";

RL J. Mol. Biol. 245:362-374(1995).

CC -1- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.

CC -1- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
"RODS".

CC -1- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.

CC -1- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
(GSS), SCRAPE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.

CC -1- SIMILARITY: BELONGS TO THE PRION FAMILY.

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CC -----

DR EMBL; U08291; AAC50080.1; -

DR HSSP; P04925; IAG2.

DR InterPro: IPR000817; -

DR Pfam; PF00377; prion; 1.

DR PRINTS; PR00341; PRION.

DR PROSITE; PS00291; PRION_1; 1.

DR PROSITE; PS00706; PRION_2; 1.

KW Prion; Glycoprotein; GPI-anchor; Repeat; Signal.

FT SIGNAL 1 22 BY SIMILARITY.

FT CHAIN 23 222 MAJOR PRION PROTEIN.

FT PROPEP 223 245 REMOVED IN MATURE FORM (BY SIMILARITY).

FT LIPID 222 222 GPI-ANCHOR (BY SIMILARITY).

FT DISULFID 171 206 BY SIMILARITY.

FT CARBOHYD 173 173 N-LINKED (GLCNAC. . .) (POTENTIAL).

FT CARBOHYD 189 189 N-LINKED (GLCNAC. . .) (POTENTIAL).

FT DOMAIN 51 83 4 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-

FT REPEAT 51 59 0.

FT REPEAT 60 67 1.

FT REPEAT 68 75 2.

FT REPEAT 76 83 3.

FT REPEAT 83 83 4.

FT SEQUENCE 245 AA; 26885 MW; D582B58E2726C99A CRC64;

Query Match 95.8%; Score 69; DB 1; Length 245;
Best Local Similarity 92.3%; Pred. No. 7e-06;
Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITORYERESQAYV 13
|||||:|||||

Db 206 CITORYERESQAYV 218

RESULT 13
PRIO_CERMO STANDARD; PRT; 246 AA.

ID PRIO_CERMO

AC O95172; O95173;

DT 01-NOV-1997 (Rel. 35, Created)

DT 01-NOV-1997 (Rel. 35, Last sequence update)

DT 15-JUL-1998 (Rel. 36, Last annotation update)

DE MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP33-35C) (FRAGMENT).
PRNP.

GN Cercopithecus mona, and Cercopithecus neglectus.

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;

OC Cercopithecinae; Cercopithecus.

OX NCBI_TaxID=36226, 36227;

RN [1]

RP SEQUENCE FROM N.A.

RX der Kuyt A.C., Dekker J.T., Goudmit J.;

RL Submitted (NOV-1996) to the EMBL/GenBank/DBJ databases.

CC -1- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.

CC -1- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
"RODS".

CC -1- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.

CC -1- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
(GSS), SCRAPE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.

CC -1- SIMILARITY: BELONGS TO THE PRION FAMILY.

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DR EMBL: U75386; AAB50625.1; -
 DR EMBL: U75387; AAB50626.1; -
 DR HSP: P04925; IAG2.
 DR InterPro: IPR000817; -
 DR Pfam: PF00377; prion.1.
 DR PROSITE: PS00291; PRION_1; 1.
 DR PROSITE: PS00706; PRION_2; 1.
 KW Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
 FT NON_TER 1 1
 FT SIGNAL <1 15 BY SIMILARITY.
 FT CHAIN 16 223 MAJOR PRION PROTEIN.
 FT PROPEP 224 246 REMOVED IN MATURE FORM (BY SIMILARITY).
 FT LIPID 223 223 GPI-ANCHOR (BY SIMILARITY).
 FT DISULFID 172 207 BY SIMILARITY.
 FT CARBOHYD 174 174 N-LINKED (GLCNAC. . .) (POTENTIAL).
 FT CARBOHYD 190 190 N-LINKED (GLCNAC. . .) (POTENTIAL).
 FT DOMAIN 44 84 5 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-Q.
 FT REPEAT 44 52 1.
 FT REPEAT 53 60 2.
 FT REPEAT 61 68 3.
 FT REPEAT 69 76 4.
 FT REPEAT 77 84 5.
 SQ SEQUENCE 246 AA; 26900 MW; 835D147CA2B4FDD3 CRC64;

Query Match 95.8%; Score 69; DB 1; Length 246;
 Best Local Similarity 92.3%; Pred. No. 7e-06;
 Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 CITORYERESQAVY 13
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 Db 207 CITORYERESQAVY 219

RESULT 14
 PRIO_CERPA STANDARD; PRT; 246 AA.
 AC 095174;
 DT 01-NOV-1997 (Rel. 35, Created)
 DT 01-NOV-1997 (Rel. 35, Last sequence update)
 DT 01-NOV-1997 (Rel. 35, Last annotation update)
 DE MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C) (FRAGMENT).
 GN PRNP.
 OS Cercopithecus patas.
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Primates; Catarrhini; Cercopithecoidea;
 OC Cercopithecinae; Cercopithecus.
 NCBI_TaxID=27677;
 RN [1]
 RP SEQUENCE FROM N.A.
 RA der Kuyil A.C., Dekker J.T., Goudsmit J.;
 RL Submitted (NOV-1996) to the EMBL/Genbank/DBJ databases.
 CC -1- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
 CC HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
 CC -1- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
 CC "RODS".
 CC -1- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
 CC -1- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
 CC ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
 CC CRETZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
 CC (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
 CC TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
 CC -1- SIMILARITY: BELONGS TO THE PRION FAMILY.
 CC -----
 CC This SWISS-PROT entry is copyright. It is produced through a collaboration
 CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
 CC the European Bioinformatics Institute. There are no restrictions on its

use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See <http://www.isb-sib.ch/announce/> or send an email to license@isb-sib.ch).

DR EMBL: U75388; AAB50627.1; -
 DR HSP: P04925; IAG2.
 DR InterPro: IPR000817; -
 DR Pfam: PF00377; prion.1.
 DR PROSITE: PS00291; PRION_1; 1.
 DR PROSITE: PS00706; PRION_2; 1.
 KW Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
 FT NON_TER 1 1
 FT SIGNAL <1 15 BY SIMILARITY.
 FT CHAIN 16 223 MAJOR PRION PROTEIN.
 FT PROPEP 224 246 REMOVED IN MATURE FORM (BY SIMILARITY).
 FT LIPID 223 223 GPI-ANCHOR (BY SIMILARITY).
 FT DISULFID 172 207 BY SIMILARITY.
 FT CARBOHYD 174 174 N-LINKED (GLCNAC. . .) (POTENTIAL).
 FT CARBOHYD 190 190 N-LINKED (GLCNAC. . .) (POTENTIAL).
 FT DOMAIN 44 84 5 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-Q.
 FT REPEAT 44 52 1.
 FT REPEAT 53 60 2.
 FT REPEAT 61 68 3.
 FT REPEAT 69 76 4.
 FT REPEAT 77 84 5.
 SQ SEQUENCE 246 AA; 26886 MW; D35D105BEC53108 CRC64;

Query Match 95.8%; Score 69; DB 1; Length 246;
 Best Local Similarity 92.3%; Pred. No. 7e-06;
 Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 CITORYERESQAVY 13
 |||||:|||||
 Db 207 CITORYERESQAVY 219

RESULT 15
 PRIO_CERTO STANDARD; PRT; 246 AA.
 AC 095176;
 DT 01-NOV-1997 (Rel. 35, Created)
 DT 01-NOV-1997 (Rel. 35, Last sequence update)
 DT 01-NOV-1997 (Rel. 35, Last annotation update)
 DE MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C) (FRAGMENT).
 GN PRNP.
 OS Cercopithecus torquatus atys (Red-crowned mangabey) (Sooty mangabey).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Primates; Catarrhini; Cercopithecoidea;
 OC Cercopithecinae; Cercopithecus.
 NCBI_TaxID=9531;
 RN [1]
 RP SEQUENCE FROM N.A.
 RA der Kuyil A.C., Dekker J.T., Goudsmit J.;
 RL Submitted (NOV-1996) to the EMBL/Genbank/DBJ databases.
 CC -1- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
 CC HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
 CC -1- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
 CC "RODS".
 CC -1- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
 CC -1- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
 CC ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
 CC CRETZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
 CC (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
 CC TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
 CC -1- SIMILARITY: BELONGS TO THE PRION FAMILY.
 CC -----
 CC This SWISS-PROT entry is copyright. It is produced through a collaboration
 CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
 CC the European Bioinformatics Institute. There are no restrictions on its
 CC use by non-profit institutions as long as its content is in no way

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CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>
CC or send an email to license@isb-sib.ch).

DR EMBL: U75385; AAB50628.1; -
DR HSP; P04925; JAG2.
DR InterPro: IPR00817; -
DR Pfam: PF00377; prion; 1.
DR PROSITE: PS00291; PRION_1; 1.
DR PROSITE: PS00706; PRION_2; 1.
KW prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
FT NON_TER 1 1
FT SIGNAL <1 15 BY SIMILARITY.
FT CHAIN 16 223 MAJOR PRION PROTEIN.
FT PROPEP 224 246 REMOVED IN MATURE FORM (BY SIMILARITY).
FT LIPID 223 223 GPI-ANCHOR (BY SIMILARITY).
FT DISULFID 172 207 BY SIMILARITY.
FT CARBOHYD 174 174 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT CARBOHYD 190 190 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT DOMAIN 44 84 5 X 8 AA TANDEM REPEATS OF P-H-G-G-W-G-
FT REPEAT 44 52 Q.
FT REPEAT 53 60 1.
FT REPEAT 61 68 2.
FT REPEAT 69 76 3.
FT REPEAT 77 84 4.
FT REPEAT 77 84 5.
SQ SEQUENCE 246 AA; 26914 MW; F58679CBBEC5ADC7 CRC64;

Query Match 95.88; Score 69; DB 1; Length 246;
Best Local Similarity 92.38; Pred. No. 7e-06; 0; Gaps 0;
Matches 12; Conservative 1; Mismatches 0; Indels 0;

QY 1 CITQYERESQAY 13
| | | | | : | | | | |
Db 207 CITQYERESQAY 219

Search completed: October 25, 2001, 08:56:07
Job time: 270 sec

GenCore version 4.5
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OM protein - protein search, using sw model

Run on: October 25, 2001, 08:51:58 ; Search time 20.34 Seconds
(without alignments)
13.160 Million cell updates/sec

Title: US-09-576-724-2

Sequence: 1 CITORYRESQAVY 13

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 197339 seqs, 20590346 residues

Total number of hits satisfying chosen parameters: 197339

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%

Listing first 45 summaries

Database :

Issued_Patents_AA:*
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6: /cgn2.6/prodata/2/1aa/backfile1.pep.*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	72	100.0	15	1 US-08-244-701B-48	Sequence 48, Appl
2	72	100.0	22	1 US-08-244-701B-33	Sequence 33, Appl
3	72	100.0	22	1 US-08-244-701B-35	Sequence 35, Appl
4	72	100.0	255	1 US-08-242-188-4	Sequence 4, Appl
5	72	100.0	255	1 US-08-509-261A-4	Sequence 4, Appl
6	72	100.0	255	1 US-08-660-626-10	Sequence 10, Appl
7	72	100.0	255	1 US-08-692-892-4	Sequence 4, Appl
8	72	100.0	255	2 US-08-713-939A-4	Sequence 4, Appl
9	72	100.0	255	2 US-08-868-162A-24	Sequence 24, Appl
10	72	100.0	255	4 US-09-031-168-10	Sequence 10, Appl
11	72	100.0	256	4 US-09-128-450-22	Sequence 22, Appl
12	72	100.0	256	4 US-09-128-450-21	Sequence 21, Appl
13	69	95.8	22	1 US-08-244-701B-37	Sequence 37, Appl
14	69	95.8	142	1 US-08-556-823-10	Sequence 10, Appl
15	69	95.8	253	1 US-08-242-188-2	Sequence 2, Appl
16	69	95.8	253	1 US-08-509-261A-2	Sequence 2, Appl
17	69	95.8	253	1 US-08-660-626-8	Sequence 8, Appl
18	69	95.8	253	1 US-08-692-892-2	Sequence 2, Appl
19	69	95.8	253	2 US-08-713-939A-2	Sequence 2, Appl
20	69	95.8	253	2 US-08-868-162A-22	Sequence 22, Appl
21	69	95.8	253	4 US-09-031-168-8	Sequence 8, Appl
22	69	95.8	253	4 US-09-128-450-20	Sequence 20, Appl
23	68	94.4	254	1 US-08-242-188-1	Sequence 1, Appl
24	68	94.4	254	1 US-08-509-261A-1	Sequence 1, Appl
25	68	94.4	254	1 US-08-660-626-7	Sequence 7, Appl
26	68	94.4	254	1 US-08-692-892-1	Sequence 1, Appl
27	68	94.4	254	2 US-08-713-939A-1	Sequence 1, Appl

28	68	94.4	254	2 US-08-868-162A-21	Sequence 21, Appl
29	68	94.4	254	4 US-09-031-168-7	Sequence 7, Appl
30	68	94.4	254	4 US-09-128-450-19	Sequence 19, Appl
31	68	94.4	254	4 US-09-128-450-28	Sequence 28, Appl
32	68	94.4	263	1 US-08-242-188-3	Sequence 3, Appl
33	68	94.4	263	1 US-08-509-261A-3	Sequence 3, Appl
34	68	94.4	263	1 US-08-660-626-9	Sequence 9, Appl
35	68	94.4	263	1 US-08-692-892-3	Sequence 3, Appl
36	68	94.4	263	2 US-08-713-939A-3	Sequence 3, Appl
37	68	94.4	263	2 US-08-868-162A-23	Sequence 23, Appl
38	68	94.4	263	4 US-09-031-168-9	Sequence 9, Appl
39	64	88.9	142	1 US-08-556-823-2	Sequence 2, Appl
40	64	88.9	254	4 US-09-128-450-26	Sequence 26, Appl
41	57	79.2	208	4 US-09-128-450-18	Sequence 18, Appl
42	55	76.4	24	1 US-08-244-701B-62	Sequence 62, Appl
43	40	55.6	528	3 US-08-688-988-6	Sequence 6, Appl
44	39	54.2	437	3 US-08-688-988-8	Sequence 8, Appl
45	39	54.2	524	3 US-08-688-988-34	Sequence 34, Appl

ALIGNMENTS

RESULT 1
US-08-244-701B-48
; Sequence 48, Application US/08244701B
; Patent No. 573572
; GENERAL INFORMATION:
; APPLICANT: Fishleigh, Robert V.
; APPLICANT: Robson, Barry
; APPLICANT: Mee, Roger P.
; TITLE OF INVENTION: Fragments of Prion Proteins
; NUMBER OF SEQUENCES: 67
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Pennie & Edmonds
; STREET: 1155 Avenue of the Americas
; CITY: New York
; STATE: New York
; COUNTRY: U.S.A.
; ZIP: 10036
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/244,701B
; FILING DATE: 02-JUN-1994
; CLASSIFICATION: 436
; ATTORNEY/AGENT INFORMATION:
; NAME: Panucci, Allan A.
; REGISTRATION NUMBER: 30,256
; REFERENCE/DOCKET NUMBER: 8080-007
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (212) 790-9090
; TELEFAX: (212) 869-8864/9741
; TELEX: 66141 PENNIE
; INFORMATION FOR SEQ ID NO: 48:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 15 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; US-08-244-701B-48

Query Match 100.0%; Score 72; DB 1; Length 15;
Best Local Similarity 100.0%; Pred. No. 2.4e-07;
Matches 13; Conservative 0; Mismatches 0; Indels 0;
QY 1 CITORYRESQAVY 13
|||||

Db 1 CITYOYORESQAY 13

RESULT 2
US-08-244-701B-33
; Sequence 33, Application US/08244701B
; Patent No. 5773572

GENERAL INFORMATION:
APPLICANT: Fishleigh, Robert V.
APPLICANT: Robson, Barry
APPLICANT: Mee, Roger P.
TITLE OF INVENTION: Fragments of Prion Proteins
NUMBER OF SEQUENCES: 67

CORRESPONDENCE ADDRESS:
ADDRESSEE: Pennie & Edmonds
STREET: 1155 Avenue of the Americas
CITY: New York
STATE: New York
COUNTRY: U.S.A.
ZIP: 10036

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25

CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/244,701B
FILING DATE: 02-JUN-1994
CLASSIFICATION: 436

ATTORNEY/AGENT INFORMATION:
NAME: Fanucci, Allan A.
REGISTRATION NUMBER: 30,256
REFERENCE/DOCKET NUMBER: 8080-007

TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
TELEFAX: (212) 869-8864/9741
TELEX: 66141 PENNIE

INFORMATION FOR SEQ. ID NO.: 33:
SEQUENCE CHARACTERISTICS:
LENGTH: 22 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide

FEATURE:
NAME/KEY: Modified-site
LOCATION: 1
OTHER INFORMATION: /label=X
OTHER INFORMATION: /note="X may be absent or present independently
OTHER INFORMATION: of Y and denotes one or more amino acid(s)"

FEATURE:
NAME/KEY: Modified-site
LOCATION: 22
OTHER INFORMATION: /label=Y
OTHER INFORMATION: /note="Y may be absent or present independently
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US-08-244-701B-33

Query Match 100.0%; Score 72; DB 1; Length 22;
Best local Similarity 100.0%; Pred. No. 3.6e-07;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CITYOYORESQAY 13
Db 3 CITYOYORESQAY 15

RESULT 3
US-08-244-701B-35
; Sequence 35, Application US/08244701B
; Patent No. 5773572
; GENERAL INFORMATION:

APPLICANT: Fishleigh, Robert V.
APPLICANT: Robson, Barry
APPLICANT: Mee, Roger P.
TITLE OF INVENTION: Fragments of Prion Proteins
NUMBER OF SEQUENCES: 67

CORRESPONDENCE ADDRESS:
ADDRESSEE: Pennie & Edmonds
STREET: 1155 Avenue of the Americas
CITY: New York
STATE: New York
COUNTRY: U.S.A.
ZIP: 10036

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25

CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/244,701B
FILING DATE: 02-JUN-1994
CLASSIFICATION: 436

ATTORNEY/AGENT INFORMATION:
NAME: Fanucci, Allan A.
REGISTRATION NUMBER: 30,256
REFERENCE/DOCKET NUMBER: 8080-007

TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
TELEFAX: (212) 869-8864/9741
TELEX: 66141 PENNIE

INFORMATION FOR SEQ. ID NO.: 35:
SEQUENCE CHARACTERISTICS:
LENGTH: 22 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide

FEATURE:
NAME/KEY: Modified-site
LOCATION: 1
OTHER INFORMATION: /label=X
OTHER INFORMATION: /note="X may be absent or present independently
OTHER INFORMATION: of Y and denotes one or more amino acid(s)"

FEATURE:
NAME/KEY: Modified-site
LOCATION: 22
OTHER INFORMATION: /label=Y
OTHER INFORMATION: /note="Y may be absent or present independently
OTHER INFORMATION: of X and denotes one or more amino acid(s)"

US-08-244-701B-35

Query Match 100.0%; Score 72; DB 1; Length 22;
Best local Similarity 100.0%; Pred. No. 3.6e-07;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CITYOYORESQAY 13
Db 3 CITYOYORESQAY 15

RESULT 4
US-08-242-188-4
; Sequence 4, Application US/08242188
; Patent No. 5565186
; GENERAL INFORMATION:
APPLICANT: Prusiner, Stanley B.
APPLICANT: Scott, Michael R.
APPLICANT: Telling, Glenn
TITLE OF INVENTION: METHOD OF DETECTING PRIONS IN A SAMPLE
TITLE OF INVENTION: AND TRANSGENIC ANIMAL USED FOR SAME
NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
ADDRESSEE: Karl Bosicevic

STREET: 2200 Sand Hill Road
CITY: Menlo Park
STATE: CA
COUNTRY: USA
ZIP: 94025
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/242,188
FILING DATE: 13-MAY-1994
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Bosicevic, Karl
REGISTRATION NUMBER: 28,807
REFERENCE/DOCKET NUMBER: 06510/014001
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 854-5277
TELEFAX: (415) 854-0875
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 255 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
ORIGINAL SOURCE:
ORGANISM: SHEEP PRION PROTEIN, SHPrp
US-08-242-188-4

Query Match 100.0%; Score 72; DB 1; Length 255;
Best Local Similarity 100.0%; Pred. No. 5.8e-06;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 CITQYQRESQAY 13
Db 216 CITQYQRESQAY 228

RESULT 5
US-08-509-261A-4
Sequence 4, Application US/08509261A
Patent No. 5763244
GENERAL INFORMATION:
APPLICANT: Prusiner, Stanley B.
APPLICANT: Scott, Michael R.
APPLICANT: Telling, Glenn
TITLE OF INVENTION: Method of Detecting Prions
TITLE OF INVENTION: in a Sample and Transgenic Animal Used fore
NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
ADDRESSEE: Bosicevic & Reed, LLP
STREET: 285 Hamilton Avenue, Suite 200
CITY: Palo Alto
STATE: CA
COUNTRY: USA
ZIP: 94301
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM compatible
OPERATING SYSTEM: DOS
SOFTWARE: FASTSEQ for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/509,261A
FILING DATE: 31-JUL-1995
CLASSIFICATION: 800
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
ATTORNEY/AGENT INFORMATION:

NAME: Bosicevic, Karl
REGISTRATION NUMBER: 28,807
REFERENCE/DOCKET NUMBER: 6510-030001
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650-327-3400
TELEFAX: 650-327-3231
TELEX:
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 255 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
US-08-509-261A-4

Query Match 100.0%; Score 72; DB 1; Length 255;
Best Local Similarity 100.0%; Pred. No. 5.8e-06;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 CITQYQRESQAY 13
Db 216 CITQYQRESQAY 228

RESULT 6
US-08-660-626-10
Sequence 10, Application US/08660626
Patent No. 5789655
GENERAL INFORMATION:
APPLICANT: Stanley B. Prusiner
APPLICANT: Glenn C. Telling
APPLICANT: Fred E. Cohen
APPLICANT: Michael R. Scott
TITLE OF INVENTION: TRANSGENIC ANIMALS EXPRESSING
TITLE OF INVENTION: EPITOPE-TAGGED PROTEINS
NUMBER OF SEQUENCES: 13
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson
STREET: 2200 Sand Hill Road, Suite 100
CITY: Menlo Park
STATE: California
COUNTRY: USA
ZIP: 94025
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: ASCII
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/660,626
FILING DATE:
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Valeta Gregg
REGISTRATION NUMBER: 35,127
REFERENCE/DOCKET NUMBER: 07532/003001
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 322-5070
TELEFAX: (415) 854-0875
INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
LENGTH: 255 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
ORIGINAL SOURCE:
ORGANISM: SHEEP PRION PROTEIN, SHPrp
US-08-660-626-10

Query Match 100.0%; Score 72; DB 1; Length 255;

Best Local Similarity 100.0%; Pred. No. 5.8e-06;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 CITYOORESOAY 13
| | | | | | | | | | | | | | |
Db 216 CITYOORESOAY 228

RESULT 7
US-08-692-892-4
; Sequence 4, Application US/08692892
; Patent No. 5792901
; GENERAL INFORMATION:
; APPLICANT: Prusiner, Stanley B.
; APPLICANT: Scott, Michael R.
; APPLICANT: Telling, Glenn
; TITLE OF INVENTION: DETECTING PRIONS IN A SAMPLE AND
; TITLE OF INVENTION: PRION PREPARATION AND TRANSGENIC ANIMAL USED FOR SAME
; NUMBER OF SEQUENCES: 4
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Karl Bozicevic
; STREET: 2200 Sand Hill Road
; CITY: Menlo Park
; STATE: CA
; COUNTRY: USA
; ZIP: 94025
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/692,892
; FILING DATE: 30-JULY-1996
; CLASSIFICATION:
; ATTORNEY/AGENT INFORMATION:
; NAME: Bozicevic, Karl
; REGISTRATION NUMBER: 28,807
; REFERENCE/DOCKET NUMBER: 06510/056001
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 322-5070
; TELEFAX: (415) 854-0875
; INFORMATION FOR SEQ ID NO: 4:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 255 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: Peptide
; ORIGINAL SOURCE:
; ORGANISM: SHEEP PRION PROTEIN, ShPrP
US-08-692-892-4

Query Match 100.0%; Score 72; DB 1; Length 255;
Best Local Similarity 100.0%; Pred. No. 5.8e-06;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 CITYOORESOAY 13
| | | | | | | | | | | | | | |
Db 216 CITYOORESOAY 228

RESULT 8
US-08-713-939A-4
; Sequence 4, Application US/08713939A
; Patent No. 5846533
; GENERAL INFORMATION:
; APPLICANT: Prusiner, Stanley B.
; APPLICANT: Williamson, R. Anthony
; APPLICANT: Burton, Dennis R.
; TITLE OF INVENTION: ANTIBODIES SPECIFIC FOR NATIVE PrP
; NUMBER OF SEQUENCES: 86

; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Fish & Richardson P.C.
; STREET: 2200 Sand Hill Road
; CITY: Menlo Park
; STATE: CA
; COUNTRY: U.S.A.
; ZIP: 94025
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FASTSEQ Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/713,939A
; FILING DATE: 13-SEP-1996
; CLASSIFICATION: 436
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Bozicevic, Karl
; REGISTRATION NUMBER: 28,807
; REFERENCE/DOCKET NUMBER: 06510/059001
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-854-5277
; TELEFAX: 415-854-0875
; TELEX:
; INFORMATION FOR SEQ ID NO: 4:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 255 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: Peptide
US-08-713-939A-4

Query Match 100.0%; Score 72; DB 2; Length 255;
Best Local Similarity 100.0%; Pred. No. 5.8e-06;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 CITYOORESOAY 13
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Db 216 CITYOORESOAY 228

RESULT 9
US-08-868-162A-24
; Sequence 24, Application US/08868162A
; Patent No. 5962669
; GENERAL INFORMATION:
; APPLICANT: Prusiner, Stanley
; APPLICANT: Cohen, Fred
; APPLICANT: James, Thomas
; APPLICANT: Kaneko, Kiyotoshi
; TITLE OF INVENTION: Prion Protein Modulator Factor
; NUMBER OF SEQUENCES: 24
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Bozicevic & Reed, LLP
; STREET: 285 Hamilton Avenue, Suite 200
; CITY: Palo Alto
; STATE: CA
; COUNTRY: USA
; ZIP: 94301
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FASTSEQ for Windows Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/868,162A
; FILING DATE: 03-JUN-1997

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; CLASSIFICATION: 536
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Bozicevic, Karl
; REGISTRATION NUMBER: 28,807
; REFERENCE/DOCKET NUMBER: 6510-083001
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 650-327-3400
; TELEFAX: 650-327-3231
; TELEX:
; INFORMATION FOR SEQ ID NO: 24:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 255 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; ORIGINAL SOURCE:
; ORGANISM: SHEEP PRION PROTEIN, ShPrP
; US-08-868-162A-24

Query Match          100.0%; Score 72; DB 2; Length 255;
Best Local Similarity 100.0%; Pred. No. 5.8e-06;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CITORYORESOAY 13
Db 216 CITORYORESOAY 228

RESULT 10
US-09-031-168-10
; Sequence 10, Application US/09031168
; Patent No. 6150583
; GENERAL INFORMATION:
; APPLICANT: Stanley B. Prusiner
; APPLICANT: Glenn C. Telling
; APPLICANT: Fred E. Cohen
; APPLICANT: Michael R. Scott
; TITLE OF INVENTION: TRANSGENIC ANIMALS EXPRESSING
; TITLE OF INVENTION: EPIPOPE-TAGGED PROTEINS
; NUMBER OF SEQUENCES: 13
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Fish & Richardson
; STREET: 2200 Sand Hill Road, Suite 100
; CITY: Menlo Park
; STATE: California
; COUNTRY: USA
; ZIP: 94025
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: ASCII
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/031,168
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/660,626
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Valeta Gregg
; REGISTRATION NUMBER: 35,127
; REFERENCE/DOCKET NUMBER: 07532/003001
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 322-5070
; TELEFAX: (415) 854-0875
; INFORMATION FOR SEQ ID NO: 10:
; SEQUENCE CHARACTERISTICS:
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; LENGTH: 255 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; ORIGINAL SOURCE:
; ORGANISM: SHEEP PRION PROTEIN, ShPrP
; US-09-031-168-10

Query Match          100.0%; Score 72; DB 4; Length 255;
Best Local Similarity 100.0%; Pred. No. 5.8e-06;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CITORYORESOAY 13
Db 216 CITORYORESOAY 228

RESULT 11
US-09-128-450-22
; Sequence 22, Application US/09128450
; Patent No. 6211149
; GENERAL INFORMATION:
; APPLICANT: Chesebro, Bruce W
; APPLICANT: Caughey, Byron W
; APPLICANT: Chabry, Joelle
; APPLICANT: Priola, Susette
; TITLE OF INVENTION: Inhibitors of Formation of Protease Resistant Prion
; FILE REFERENCE: 50121
; CURRENT APPLICATION NUMBER: US/09/128,450
; CURRENT FILING DATE: 1998-08-03
; NUMBER OF SEQ ID NOS: 29
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 22
; LENGTH: 256
; TYPE: PrT
; ORGANISM: Ovis aries
; US-09-128-450-22

Query Match          100.0%; Score 72; DB 4; Length 256;
Best Local Similarity 100.0%; Pred. No. 5.8e-06;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CITORYORESOAY 13
Db 217 CITORYORESOAY 229

RESULT 12
US-09-128-450-21
; Sequence 21, Application US/09128450
; Patent No. 6211149
; GENERAL INFORMATION:
; APPLICANT: Chesebro, Bruce W
; APPLICANT: Caughey, Byron W
; APPLICANT: Chabry, Joelle
; APPLICANT: Priola, Susette
; TITLE OF INVENTION: Inhibitors of Formation of Protease Resistant Prion
; FILE REFERENCE: 50121
; CURRENT APPLICATION NUMBER: US/09/128,450
; CURRENT FILING DATE: 1998-08-03
; NUMBER OF SEQ ID NOS: 29
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 21
; LENGTH: 264
; TYPE: PrT
; ORGANISM: Bos taurus
; US-09-128-450-21
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Query Match 100.0%; Score 72; DB 4; Length 264;
Best Local Similarity 100.0%; Pred. No. 6e-06;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITOYORESOAY 13
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DB 225 CITOYORESOAY 237

RESULT 13

US-08-244-701B-37
; Sequence 37, Application US/08244701B
; Patent No. 5773572
; GENERAL INFORMATION:
; APPLICANT: Fishleigh, Robert V.
; APPLICANT: Robson, Barry
; APPLICANT: Mee, Roger P.
; TITLE OF INVENTION: Fragments of Prion Proteins
; NUMBER OF SEQUENCES: 67
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Pennie & Edmonds
; STREET: 1155 Avenue of the Americas
; CITY: New York
; STATE: New York
; COUNTRY: U.S.A.
; ZIP: 10036
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/244,701B
; FILING DATE: 02-JUN-1994
; CLASSIFICATION: 436
; ATTORNEY/AGENT INFORMATION:
; NAME: Fannucci, Allan A.
; REGISTRATION NUMBER: 30,256
; REFERENCE/DOCKET NUMBER: 8080-007
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (212) 790-9090
; TELEFAX: (212) 869-8864/9741
; TELEX: 66141 PENNIE
; INFORMATION FOR SEQ ID NO: 37:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 22 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; FEATURE:
; NAME/KEY: Modified-site
; LOCATION: 1
; OTHER INFORMATION: /label=X
; OTHER INFORMATION: /note="X may be absent or present independently
; OTHER INFORMATION: of Y and denotes one or more amino acid(s)"
; FEATURE:
; NAME/KEY: Modified-site
; LOCATION: 22
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; OTHER INFORMATION: /note="Y may be absent or present independently
; OTHER INFORMATION: of X and denotes one or more amino acid(s)"
US-08-244-701B-37

Query Match 95.8%; Score 69; DB 1; Length 22;
Best Local Similarity 92.3%; Pred. No. 1.3e-06;
Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITOYORESOAY 13
|||||
DB 3 CITOYORESOAY 15

RESULT 14
US-08-556-823-10
; Sequence 10, Application US/08556823
; Patent No. 5750361
; GENERAL INFORMATION:
; APPLICANT: Stanley B. Prusiner
; APPLICANT: Kiyotoshi Kaneko
; APPLICANT: Fred E. Cohen
; TITLE OF INVENTION: Formation and use of prion protein
; NUMBER OF SEQUENCES: 10
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Fish & Richardson
; STREET: 2200 Sand Hill Road, Suite 100
; CITY: Menlo Park
; STATE: California
; COUNTRY: USA
; ZIP: 94025
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: ASCII
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/556,823
; FILING DATE:
; CLASSIFICATION: 530
; ATTORNEY/AGENT INFORMATION:
; NAME: Valeta Gregg
; REGISTRATION NUMBER: 35,127
; REFERENCE/DOCKET NUMBER: 07532/003001
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 322-5070
; TELEFAX: (415) 854-0875
; INFORMATION FOR SEQ ID NO: 10:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 142 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
US-08-556-823-10

Query Match 95.8%; Score 69; DB 1; Length 142;
Best Local Similarity 92.3%; Pred. No. 1.1e-05;
Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITOYORESOAY 13
|||||
DB 125 CITOYORESOAY 137

RESULT 15
US-08-242-188-2
; Sequence 2, Application US/08242188
; Patent No. 5565186
; GENERAL INFORMATION:
; APPLICANT: Prusiner, Stanley B.
; APPLICANT: Scott, Michael R.
; APPLICANT: Telling, Glenn
; TITLE OF INVENTION: METHOD OF DETECTING PRIONS IN A SAMPLE
; TITLE OF INVENTION: AND TRANSGENIC ANIMAL USED FOR SAME
; NUMBER OF SEQUENCES: 4
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Karl Bosicovic
; STREET: 2200 Sand Hill Road
; CITY: Menlo Park
; STATE: CA
; COUNTRY: USA
; ZIP: 94025
; COMPUTER READABLE FORM:

OY 1 CITOYORESOAY 13
|||||
DB 3 CITOYORESOAY 15

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/242,188
FILING DATE: 13-MAY-1994
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Bosicevic, Karl
REGISTRATION NUMBER: 28,807
REFERENCE/DOCKET NUMBER: 06510/014001
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 854-5277
TELEFAX: (415) 854-0875
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 253 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
ORIGINAL SOURCE:
ORGANISM: HUMAN PRION PROTEIN, HuPrp
US-08-242-188-2

Query Match 95.88; Score 69; DB 1; Length 253;
Best Local Similarity 92.3%; Pred. No. 2.1e-05;
Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
QY 1 CITORYERSQAY 13
Db 214 CITORYERSQAY 226

Search completed: October 25, 2001, 08:51:58
Job time: 166 sec

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GenCore version 4.5
Copyright (c) 1993 - 2000 CompuGen Ltd.

OM protein - protein search, using sw model

Run on: October 25, 2001, 08:50:02 ; Search time 22.96 Seconds
(without alignments)
43.130 Million cell updates/sec

Title: US-09-576-724-1
Perfect score: 72
Sequence: 1 CITOVERESQAVY 13

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 219241 seqs, 76174552 residues

Total number of hits satisfying chosen parameters: 219241

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_68:*
1: p1r1:*
2: p1r2:*
3: p1r3:*
4: p1r4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	72	100.0	232	2 S371041	major prion protei
2	72	100.0	252	2 S53631	major prion protei
3	72	100.0	253	1 UJHU	major prion protei
4	72	100.0	253	2 I37032	major prion protei
5	72	100.0	253	2 I61847	major prion protei
6	72	100.0	253	2 S53635	prion protein - si
7	72	100.0	253	2 S53617	major prion protei
8	72	100.0	253	2 S53614	major prion protei
9	72	100.0	253	2 S53616	major prion protei
10	69	95.8	239	2 S53633	major prion protei
11	69	95.8	241	2 S71056	major prion protei
12	69	95.8	241	2 S71048	major prion protei
13	69	95.8	245	2 S53627	major prion protei
14	69	95.8	245	2 S71045	major prion protei
15	69	95.8	252	2 I61848	major prion protei
16	69	95.8	252	2 S53634	major prion protei
17	69	95.8	253	2 I84423	major prion protei
18	69	95.8	253	2 S53619	major prion protei
19	69	95.8	253	2 S53618	major prion protei
20	69	95.8	253	2 S53620	major prion protei
21	69	95.8	253	2 S71055	major prion protei
22	69	95.8	253	2 S53623	major prion protei
23	69	95.8	253	2 S53624	major prion protei
24	69	95.8	253	2 S53625	major prion protei
25	69	95.8	256	2 JU0268	major prion protei
26	69	95.8	256	2 S37149	prion protein - go
27	69	95.8	256	2 A54281	major prion protei
28	69	95.8	260	2 S53629	major prion protei
29	69	95.8	264	2 A54330	major prion protei

30	66	91.7	264	2 S37137	prion protein - pr
31	65	90.3	226	2 A53892	prion-related pr
32	65	90.3	254	2 A34759	prion protein - Ch
33	65	90.3	254	2 B34759	prion protein - go
34	65	90.3	254	2 A23544	major prion protei
35	65	90.3	257	2 J01900	major prion protei
36	61	84.7	254	1 UJHYH	major prion prp-Sc
37	61	84.7	257	2 A23545	major prion prp-Sc
38	56	77.8	252	2 JC6175	prion protein - ra
39	43	59.7	524	2 G96867	probable beta-qluc
40	43	59.7	524	2 H96687	probable beta-qluc
41	42	58.3	524	2 S57621	thioglycosidase (E
42	42	58.3	1030	2 I39987	antibiotic subtil
43	38	52.8	302	2 C64103	glycine--tRNA lig
44	38	52.8	303	1 SYECCA	glycine--tRNA lig
45	38	52.8	303	2 H86030	glycine tRNA synth

ALIGNMENTS

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RESULT 1
S71041
major prion protein - black-handed spider monkey (fragment)
C:Species: Ateles geoffroyi (black-handed spider monkey)
C:Date: 27-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 13-Aug-1999
C:Accession: S71041; S53630
R:Schatzl, H.M.
Submitted to the EMBL Data Library, April 1994
A:Reference number: S71041
A:Accession: S71041
A:Molecule type: DNA
A:Residues: 1-232 <SCH>
A:Cross-references: EMBL:U08309; NID:9474376; PIDN:AAC50097.1; PID:9474377
R:Schatzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A:Title: Prion protein gene variation among primates.
A:Reference number: S53614; MUID:95139066
A:Accession: S53630
A>Status: nucleic acid sequence not shown
A:Molecule type: DNA
A:Residues: 1-194, 'R', 196-231 <SCW>
A:Cross-references: EMBL:U08309
C:Superfamily: major prion protein
C:Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie; transmem
Query Match 100.0%; Score 72; DB 2; Length 232;
Best Local Similarity 100.0%; Pred. No. 6.6e-06;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0.
QY 1 CITOVERESQAVY 13
Db 198 CITOVERESQAVY 210

RESULT 2
S53631
major prion protein - brown capuchin
C:Species: Cebus apella (brown capuchin, black-capped capuchin)
C:Date: 28-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 13-Aug-1999
C:Accession: S53631; S71044
R:Schatzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A:Title: Prion protein gene variation among primates.
A:Reference number: S53614; MUID:95139066
A:Accession: S53631
A>Status: nucleic acid sequence not shown
A:Molecule type: DNA
A:Residues: 1-252 <SCH>
A:Cross-references: EMBL:U08295
R:Schatzl, H.M.
Submitted to the EMBL Data Library, April 1994

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A:Reference number: S71041
A:Accession: S71044
A:Molecule type: DNA
A:Residues: 1-209, 'E', 211-252 <SCW>
A:Cross-references: EMBL:U082295; NID:g474348; PIDN:AAC50084.1; PID:g474349
C:Superfamily: major prion protein
C:Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie; transmembrane protein
Query Match      100.0%; Score 72; DB 2; Length 252;
Best Local Similarity 100.0%; Pred. No. 7.2e-06;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY      1 CIFYERESQAYV 13
        |||iiiiiii|||
Db       213 CIFYERESQAYV 225

RESULT      3
UUUU
major prion protein precursor - human
N:Alternate names: 11K amyloid protein; 27-30K statoglycoprotein; PrP 27-30; PrP 33-35C;
C:Species: Homo sapiens (man)
C>Date: 25-Oct-1987 #sequence_revision 12-Apr-1996 #ext-change 16-Jun-2000
C:Accession: A24173; A40372; A05017; S14078; I54322; I68597; I58135; I59184; I79633; I79796; I81234; I81235; I81236; I81237; I81238; I81239; I81240; I81241; I81242; I81243; I81244; I81245; I81246; I81247; I81248; I81249; I81250; I81251; I81252; I81253; I81254; I81255; I81256; I81257; I81258; I81259; I81260; I81261; I81262; I81263; I81264; I81265; I81266; I81267; I81268; I81269; I81270; I81271; I81272; I81273; I81274; I81275; I81276; I81277; I81278; I81279; I81280; I81281; I81282; I81283; I81284; I81285; I81286; I81287; I81288; I81289; I81290; I81291; I81292; I81293; I81294; I81295; I81296; I81297; I81298; I81299; I81300; I81301; I81302; I81303; I81304; I81305; I81306; I81307; I81308; I81309; I81310; I81311; I81312; I81313; I81314; I81315; I81316; I81317; I81318; I81319; I81320; I81321; I81322; I81323; I81324; I81325; I81326; I81327; I81328; I81329; I81330; I81331; I81332; I81333; I81334; I81335; I81336; I81337; I81338; I81339; I81340; I81341; I81342; I81343; I81344; I81345; I81346; I81347; I81348; I81349; I81350; I81351; I81352; I81353; I81354; I81355; I81356; I81357; I81358; I81359; I81360; I81361; I81362; I81363; I81364; I81365; I81366; I81367; I81368; I81369; I81370; I81371; I81372; I81373; I81374; I81375; I81376; I81377; I81378; I81379; I81380; I81381; I81382; I81383; I81384; I81385; I81386; I81387; I81388; I81389; I81390; I81391; I81392; I81393; I81394; I81395; I81396; I81397; I81398; I81399; I81400; I81401; I81402; I81403; I81404; I81405; I81406; I81407; I81408; I81409; I81410; I81411; I81412; I81413; I81414; I81415; I81416; I81417; I81418; I81419; I81420; I81421; I81422; I81423; I81424; I81425; I81426; I81427; I81428; I81429; I81430; I81431; I81432; I81433; I81434; I81435; I81436; I81437; I81438; I81439; I81440; I81441; I81442; I81443; I81444; I81445; I81446; I81447; I81448; I81449; I81450; I81451; I81452; I81453; I81454; I81455; I81456; I81457; I81458; I81459; I81460; I81461; I81462; I81463; I81464; I81465; I81466; I81467; I81468; I81469; I81470; I81471; I81472; I81473; I81474; I81475; I81476; I81477; I81478; I81479; I81480; I81481; I81482; I81483; I81484; I81485; I81486; I81487; I81488; I81489; I81490; I81491; I81492; I81493; I81494; I81495; I81496; I81497; I81498; I81499; I81500; I81501; I81502; I81503; I81504; I81505; I81506; I81507; I81508; I81509; I81510; I81511; I81512; I81513; I81514; I81515; I81516; I81517; I81518; I81519; I81520; I81521; I81522; I81523; I81524; I81525; I81526; I81527; I81528; I81529; I81530; I81531; I81532; I81533; I81534; I81535; I81536; I81537; I81538; I81539; I81540; I81541; I81542; I81543; I81544; I81545; I81546; I81547; I81548; I81549; I81550; I81551; I81552; I81553; I81554; I81555; I81556; I81557; I81558; I81559; I81560; I81561; I81562; I81563; I81564; I81565; I81566; I81567; I81568; I81569; I81570; I81571; I81572; I81573; I81574; I81575; I81576; I81577; I81578; I81579; I81580; I81581; I81582; I81583; I81584; I81585; I81586; I81587; I81588; I81589; I81590; I81591; I81592; I81593; I81594; I81595; I81596; I81597; I81598; I81599; I81600; I81601; I81602; I81603; I81604; I81605; I81606; I81607; I81608; I81609; I81610; I81611; I81612; I81613; I81614; I81615; I81616; I81617; I81618; I81619; I81620; I81621; I81622; I81623; I81624; I81625; I81626; I81627; I81628; I81629; I81630; I81631; I81632; I81633; I81634; I81635; I81636; I81637; I81638; I81639; I81640; I81641; I81642; I81643; I81644; I81645; I81646; I81647; I81648; I81649; I81650; I81651; I81652; I81653; I81654; I81655; I81656; I81657; I81658; I81659; I81660; I81661; I81662; I81663; I81664; I81665; I81666; I81667; I81668; I81669; I81670; I81671; I81672; I81673; I81674; I81675; I81676; I81677; I81678; I81679; I81680; I81681; I81682; I81683; I81684; I81685; I81686; I81687; I81688; I81689; I81690; I81691; I81692; I81693; I81694; I81695; I81696; I81697; I81698; I81699; I81700; I81701; I81702; I81703; I81704; I81705; I81706; I81707; I81708; I81709; I81710; I81711; I81712; I81713; I81714; I81715; I81716; I81717; I81718; I81719; I81720; I81721; I81722; I81723; I81724; I81725; I81726; I81727; I81728; I81729; I81730; I81731; I81732; I81733; I81734; I81735; I81736; I81737; I81738; I81739; I81740; I81741; I81742; I81743; I81744; I81745; I81746; I81747; I81748; I81749; I81750; I81751; I81752; I81753
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A>Title: Atypal Creutzfeldt-Jakob disease in an American family with an insert.
A:Reference number: 158135; MUID:92140671
A:Accession: 158135
A>Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 51-91; 'PHGGGGOHPHGGMGOPHGGMGOPHGGMGOPHGGGC' <RE>
A:Cross-references: GB:S60539; NID:g244698; PIDN:AAB21334.1; PID:g244699
Proc. Natl. Acad. Sci. U.S.A. 88, 10926-10930, 1991
R.Goldfarb, L.G.; Brown, P.; McCombie, W.R.; Goldgeber, D.; Swergold, G.D.; Willis, P.
A>Title: Transmissible familial Creutzfeldt-Jakob disease associated with five, seven
A:Reference number: 159184; MUID:92073400
A:Accession: 159184
A>Status: translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 60-67 <GOL>
A:Cross-references: GB:S71208; NID:g239877; PIDN:AAB20521.1; PID:g239878; GB:S71...
C:Genetics:
A:Gene: GDB:PMP; CJD; PRIP
A:Cross-references: GDB:I20720; OMIM:176640; OMIM:137440
A:Map position: 20pter-20p12
A:Introns: #status absent
A>Note: one intron occurs before the initiator codon
C:Superfamily: major prion protein
C:Keywords: amyloid; blocked carboxyl end; brain; glycoprotein; lipoprotein; phi...
F:1-22/Domin: signal sequence #status predicted <SIG>
F:23-23/Product: major prion protein #status predicted <MAT>
F:54-92/Region: 8-residue repeats (P-H-G-G-G-W-G-O)
F:113-114/Domain: transmembrane #status predicted <TM>
F:231-253/Domain: catalytic terminal propheete #status predicted <CTP>
F:179-214/Disulfide bonds: #status predicted
F:181,197/Binding site: carbohydrate (Asn) (covalent) #status predicted
F:230/Modified site: GPI-anchor ethanolamine amidated carboxyl end (Ser) (in main
Query Match 100.0%; Score 72; DB 1; Length 253;
Best Local Similarity 100.0%; Pred. NO. 7.3e-06;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0,
QY 1 CITOVERSQAYV 13
|||||
Db 214 CITOVERSQAYV 226

RESULT 4
137032 major prion protein precursor - gorilla
C:Species: Gorilla gorilla (gorilla)
C>Date: 31-May-1996 #sequence_revision 31-May-1996 #text_change 13-Aug-1999
C:Accession: I37032
R:Cervenakova, L.; Brown, P.; Goldfarb, L.G.; Nagle, J.; Pettrone, K.; Rubenstein, R.
Proc. Natl. Acad. Sci. U.S.A. 91, 12159-12162, 1994
A>Title: Infectious amyloid precursor gene sequences in primates used for experimenta
A:Reference number: I36907; MUID:95083661
A:Accession: I37032
A>Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 1-253 <RES>
A:Cross-references: EMBL:U01516; NID:g563208; PIDN:AAA68633.1; PID:g563209
C:Superfamily: major prion protein

Query Match 100.0%; Score 72; DB 2; Length 253;
Best Local Similarity 100.0%; Pred. No. 7.3e-06;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 CITOVERSQAYV 13
|||||
Db 214 CITOVERSQAYV 226

RESULT 5
161847
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major prion protein precursor - chimpanzee
 C:Species: Pan troglodytes (chimpanzee)
 C>Date: 31-May-1996 #sequence_revision 31-May-1996 #text_change 13-Aug-1999
 C:Accession: I61847, S71060, S53615
 R:Schaefer, L.; Brown, P.; Goldfarb, L.G.; Nagle, J.; Petrone, K.; Rubenstein, R.; D
 Proc. Natl. Acad. Sci. U.S.A. 91, 12159-12162, 1994
 A:Title: Infectious amyloid precursor gene sequences in primates used for experimental t
 A:Reference number: I36907, MUID:95083661
 A:Accession: I61847
 A:Status: translated from GB/EMBL/DBJ
 A:Molecule type: DNA
 A:Residues: 1-253 <RES>
 A:Cross-references: EMBL:U15039; NID:g609303; PIDN:AAA68632.1; PID:g609304
 R:Schaefer, L. M.
 Submitted to the EMBL Data Library, April 1994
 A:Reference number: S71041
 A:Accession: S71060
 A:Molecule type: DNA
 A:Residues: 1-253 <SCW>
 A:Cross-references: EMBL:U08296; NID:g474350; PIDN:AAC50085.1; PID:g474351
 R:Schaefer, L. M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
 J. Mol. Biol. 245, 362-374, 1995
 A:Title: Prion protein gene variation among primates.
 A:Reference number: S53614, MUID:95139066
 A:Accession: S53615
 A:Status: nucleic acid sequence not shown
 A:Molecule type: DNA
 A:Residues: 1-210, 'R', 212-253 <SCH>
 A:Cross-references: EMBL:U08296
 C:Superfamily: major prion protein
 C:Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie; transmembrane p

Query Match 100.0%; Score 72; DB 2; Length 253;
 Best Local Similarity 100.0%; Pred. No. 7.3e-06;
 Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITOVERSOAY 13
 |||||
 Db 214 CITOVERSOAY 226

RESULT 6
 S53635
 prion protein - siamang
 C:Species: Hylobates syndactylus (siamang)
 C>Date: 15-Jul-1995 #sequence_revision 15-Apr-1996 #text_change 13-Aug-1999
 C:Accession: S53635
 R:Schaefer, L. M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
 J. Mol. Biol. 245, 362-374, 1995
 A:Title: Prion protein gene variation among primates.
 A:Reference number: S53614, MUID:95139066
 A:Accession: S53635
 A:Status: nucleic acid sequence not shown; translation not shown
 A:Molecule type: DNA
 A:Residues: 1-253 <SCH>
 A:Cross-references: EMBL:U08308; NID:g474374; PIDN:AAC50096.1; PID:g474375
 A:Note: the source was designated as Sympthalangus syndactylus
 A:Note: the nucleotide sequence was submitted to the EMBL Data Library, April 1994
 C:Superfamily: major prion protein

Query Match 100.0%; Score 72; DB 2; Length 253;
 Best Local Similarity 100.0%; Pred. No. 7.3e-06;
 Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITOVERSOAY 13
 |||||
 Db 214 CITOVERSOAY 226

RESULT 7
 S53617

major prion protein - common gibbon
 C:Species: Hylobates lar (common gibbon, white-handed gibbon)
 C>Date: 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change 13-Aug-1999
 C:Accession: S53617, S71050
 R:Schaefer, L. M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
 J. Mol. Biol. 245, 362-374, 1995
 A:Title: Prion protein gene variation among primates.
 A:Reference number: S53614, MUID:95139066
 A:Accession: S53617
 A:Status: nucleic acid sequence not shown
 A:Molecule type: DNA
 A:Residues: 1-253 <SCH>
 A:Cross-references: EMBL:U08299
 R:Schaefer, L. M.
 Submitted to the EMBL Data Library, April 1994
 A:Reference number: S71041
 A:Accession: S71050
 A:Molecule type: DNA
 A:Residues: 1-210, 'E', 212-253 <SCW>
 A:Cross-references: EMBL:U08299; NID:g474356; PIDN:AAC50088.1; PID:g474357
 C:Superfamily: major prion protein
 C:Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie; transmembrane

Query Match 100.0%; Score 72; DB 2; Length 253;
 Best Local Similarity 100.0%; Pred. No. 7.3e-06;
 Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITOVERSOAY 13
 |||||
 Db 214 CITOVERSOAY 226

RESULT 8
 S53614
 major prion protein - gorilla
 C:Species: Gorilla gorilla (gorilla)
 C>Date: 28-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 13-Aug-1999
 C:Accession: S53614, S71049
 R:Schaefer, L. M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
 J. Mol. Biol. 245, 362-374, 1995
 A:Title: Prion protein gene variation among primates.
 A:Reference number: S53614, MUID:95139066
 A:Accession: S53614
 A:Status: nucleic acid sequence not shown
 A:Molecule type: DNA
 A:Residues: 1-253 <SCH>
 A:Cross-references: EMBL:U08300
 R:Schaefer, L. M.
 Submitted to the EMBL Data Library, April 1994
 A:Reference number: S71041
 A:Accession: S71049
 A:Molecule type: DNA
 A:Residues: 1-210, 'E', 212-253 <SCW>
 A:Cross-references: EMBL:U08300; NID:g474358; PIDN:AAC50089.1; PID:g474359
 C:Superfamily: major prion protein
 C:Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie; transmembrane

Query Match 100.0%; Score 72; DB 2; Length 253;
 Best Local Similarity 100.0%; Pred. No. 7.3e-06;
 Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITOVERSOAY 13
 |||||
 Db 214 CITOVERSOAY 226

RESULT 9
 S53616
 major prion protein - orangutan
 C:Species: Pongo pygmaeus (orangutan)
 C>Date: 28-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 13-Aug-1999

C:Accession: S53616; S71059
R:Schaezel, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A:Title: Prion protein gene variation among primates.
A:Reference number: S53614; MUID:95139066
A:Accession: S53616
A:Status: nucleic acid sequence not shown
A:Molecule type: DNA
A:Residues: 1-253 <SCH>
A:Cross-references: EMBL:008305
R:Schaezel, H.M.
Submitted to the EMBL Data Library, April 1994
A:Reference number: S71041
A:Accession: S71059
A:Molecule type: DNA
A:Residues: 1-210, 'E', 212-253 <SCW>
A:Cross-references: EMBL:008305; NID:9474368; PIDN:AAC50093.1; PID:9474369
C:Superfamily: major prion protein
C:Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie; transmembrane pro

Query Match 100.0%; Score 72; DB 2; Length 253;
Best Local Similarity 100.0%; Pred. No. 7.3e-06;

Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITOVERSOAY 13
|||||:|||||
Db 214 CITOVERSOAY 226

RESULT 10
S53633
Major prion protein - doucoucouli (fragment)

C:Species: Aotus trivirgatus (doucoucouli, night monkey, owl monkey)
C:Date: 28-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 13-Aug-1999
R:Schaezel, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A:Title: Prion protein gene variation among primates.
A:Reference number: S53614; MUID:95139066

A:Accession: S53633
A:Status: nucleic acid sequence not shown
A:Molecule type: DNA
A:Residues: 1-239 <SCH>
A:Cross-references: EMBL:008293

R:Schaezel, H.M.
Submitted to the EMBL Data Library, April 1994
A:Reference number: S71041
A:Accession: S71042
A:Molecule type: DNA

A:Residues: 1-202, 'E', 204-239 <SCW>
A:Cross-references: EMBL:008293; NID:9474344; PIDN:AAC50082.1; PID:9474345

C:Superfamily: major prion protein
C:Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie; transmembrane pro

Query Match 95.8%; Score 69; DB 2; Length 239;
Best Local Similarity 92.3%; Pred. No. 2.5e-05;

Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITOVERSOAY 13
|||||:|||||
Db 206 CITOVERSOAY 218

RESULT 11

S71056

Major prion protein - mandrill (fragment)

C:Species: Papio sphinx, Mandrillus sphinx (mandrill)

C:Date: 27-Oct-1996 #sequence_revision 14-Feb-1997 #text_change 13-Aug-1999

C:Accession: S71056; S53621

R:Schaezel, H.M.
Submitted to the EMBL Data Library, April 1994

A:Reference number: S71041

A:Accession: S71056

A:Molecule type: DNA

A:Residues: 1-241 <SCH>

A:Cross-references: EMBL:008303; NID:9474364; PIDN:AAC50091.1; PID:9474365

R:Schaezel, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995

A:Title: Prion protein gene variation among primates.
A:Reference number: S53614; MUID:95139066

A:Accession: S53621
A:Status: nucleic acid sequence not shown

A:Molecule type: DNA
A:Residues: 1-203, 'R', 205-240 <SCW>

A:Cross-references: EMBL:008303
C:Superfamily: major prion protein

C:Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie; transmembrane pro

Query Match 95.8%; Score 69; DB 2; Length 241;
Best Local Similarity 92.3%; Pred. No. 2.5e-05;

Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0

OY 1 CITOVERSOAY 13
|||||:|||||
Db 207 CITOVERSOAY 219

RESULT 12
S71048
Major prion protein - Callicephus moloch (fragment)

C:Species: Callicephus moloch
C:Date: 27-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 13-Aug-1999

R:Schaezel, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
Submitted to the EMBL Data Library, April 1994

A:Reference number: S71041
A:Accession: S71048
A:Molecule type: DNA

A:Residues: 1-241 <SCH>
A:Cross-references: EMBL:008312; NID:9475585; PIDN:AAC50100.1; PID:9475586

R:Schaezel, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995

A:Title: Prion protein gene variation among primates.
A:Reference number: S53614; MUID:95139066

A:Accession: S53632
A:Status: nucleic acid sequence not shown

A:Molecule type: DNA
A:Residues: 1-203, 'R', 205-240 <SCW>

A:Cross-references: EMBL:008312
C:Superfamily: major prion protein

C:Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie; transmembrane pro

Query Match 95.8%; Score 69; DB 2; Length 241;
Best Local Similarity 92.3%; Pred. No. 2.5e-05;

Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITOVERSOAY 13
|||||:|||||
Db 207 CITOVERSOAY 219

RESULT 13

S53627

Major prion protein - green monkey

C:Species: Cercopithecus aethiops (green monkey, grivet)

C:Date: 28-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 13-Aug-1999

C:Accession: S53627; S71043

R:Schaezel, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995

A:Title: Prion protein gene variation among primates.
A:Reference number: S53614; MUID:95139066

A:Accession: S53627

A:Status: nucleic acid sequence not shown
 A:Molecule type: DNA
 A:Residues: 1-245 <SCH>
 A:Cross-references: EMBL:U08291
 R:Schatzl, H.M.
 Submitted to the EMBL Data Library, April 1994
 A:Reference number: S71041
 A:Accession: S71043
 A:Molecule type: DNA
 A:Residues: 1-10, 'V', 12-202, 'E', 204-245 <SCW>
 A:Cross-references: EMBL:U08291; NID:g474340; PIDN:AAC50080.1; PID:g474341
 C:Superfamily: major prion protein
 C:Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie; transmembrane protein

Query Match 95.8%; Score 69; DB 2; Length 245;
 Best Local Similarity 92.3%; Pred. No. 2.5e-05;
 Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITQYERESQAYY 13
 ||||||:|||||
 Db 206 CITQYERESQAYY 218

RESULT 14
 S71045
 major prion protein - Cercopithecus diana
 C:Species: Cercopithecus diana
 C:Date: 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change 13-Aug-1999
 C:Accession: S71045; S53628
 R:Schatzl, H.M.
 submitted to the EMBL Data Library, April 1994
 A:Reference number: S71041
 A:Accession: S71045
 A:Molecule type: DNA
 A:Residues: 1-245 <SCH>
 A:Cross-references: EMBL:U08292; NID:g474342; PIDN:AAC50081.1; PID:g474343
 R:Schatzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
 J. Mol. Biol. 245, 362-374, 1995
 A:Title: Prion protein gene variation among primates.
 A:Reference number: S53614; MUID:95139066
 A:Accession: S53628
 A:Status: nucleic acid sequence not shown
 A:Molecule type: DNA
 A:Residues: 8-10, 'L', 12-202, 'R', 204-239 <SCW>
 A:Cross-references: EMBL:U08292
 C:Superfamily: major prion protein
 C:Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie; transmembrane protein

Query Match 95.8%; Score 69; DB 2; Length 245;
 Best Local Similarity 92.3%; Pred. No. 2.5e-05;
 Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITQYERESQAYY 13
 ||||||:|||||
 Db 206 CITQYERESQAYY 218

RESULT 15
 I61848
 major prion protein precursor - common squirrel monkey
 C:Species: Saimiri sciureus (common squirrel monkey)
 C:Date: 31-May-1996 #sequence_revision 31-May-1996 #text_change 13-Aug-1999
 C:Accession: I61848
 R:Cervenkova, L.; Brown, P.; Goldfarb, L.G.; Nagle, J.; Pettrone, K.; Rubenstein, R.; D
 Proc. Natl. Acad. Sci. U.S.A. 91, 12159-12162, 1994
 A:Title: Infectious amyloid precursor gene sequences in primates used for experimental t
 A:Reference number: I36907; MUID:95083661
 A:Accession: I61848
 A:Status: preliminary; translated from GB/EMBL/DBJ
 A:Molecule type: DNA
 A:Residues: 1-252 <RES>

A:Cross-references: EMBL:U15165; NID:g595852; PIDN:AAA68636.1; PID:g595853
 C:Superfamily: major prion protein

Query Match 95.8%; Score 69; DB 2; Length 252;
 Best Local Similarity 92.3%; Pred. No. 2.6e-05;
 Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITQYERESQAYY 13
 ||||||:|||||
 Db 213 CITQYERESQAYY 225

Search completed: October 25, 2001, 08:52:28
 Job time: 146 sec

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11		/note - may be absent
11	Misc-difference 20	
FT		

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FT      /note= "May be absent"
FT      Misc-difference 21
FT      /note= "May be absent"
FT      Misc-difference 22
FT      /note= "One or more residue or may be absent"
XX
XX      W09311155-A.
XX
XX      10-JUN-1993.
XX
XX      03-DEC-1992; 92MO-GB02246.
XX
XX      03-DEC-1991; 91GB-0025747.
XX      10-JUL-1992; 92GB-0014663.
XX
XX      (PROT-) PROTEUS MOLECULAR DESIGN LTD.
XX
XX      Fishleigh RV, Mee RP, Robson B;
XX
XX      WPI; 1993-196994/24.
XX
XX      New polypeptide(s) contg. antigenic site of prion protein -
XX      useful for treatment and diagnosis of mammalian encephalopathies
XX      e.g. Creutzfeldt-Jacob disease and kuru
XX
XX      Claim 28; Page 74; 82pp; English.
XX
XX      The sequences given in AAR38041-48 represent polypeptides which are
XX      derived from an antigenic site, region F, of a prion protein. Prion
XX      proteins comprise six regions of interest (A-F), and two related frame
XX      shift peptides sequences caused by a repeating section in region E
XX      having a nucleic acid coding sequence frame shift mutation of +1 (Fsa)
XX      or -1 (Fsb). These peptides (see also AAR38041-48) and antibodies
XX      raised against these may be used to treat or prevent spongiform
XX      encephalopathy in humans, sheep or cattle. They can be used to block
XX      cellular binding and aggregation of prion proteins and to stimulate the
XX      mammalian immune system. These peptides may be used to distinguish
XX      between the normal form of prion protein (PrPc) and the
XX      scrapie-associated form (PrPsc). These peptides may include rare or
XX      synthetic amino acids or a ratio- inverse peptide modification to improve
XX      resistance to enzymatic degradation.
XX
XX      Sequence 22 AA:
XX
XX      Query Match 100.0%; Score 72; DB 14; Length 22;
XX      Best Local Similarity 100.0%; Pred. No. 9.9e-07;
XX      Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX
XX      QY 1 CITOYERESQAYY 13
XX      |||
XX      3 cityeresgayy 15
XX
XX      RESULT 2
XX      AAW17686 standard; peptide; 142 AA.
XX
XX      AAW17686;
XX
XX      14-JAN-1998 (first entry)
XX
XX      Prion protein peptide Hu 90-231.
XX
XX      Prion protein; PrP; alpha helical domain; screening; inhibition;
XX      binding; scrapie; bovine spongiform encephalopathy; BSE; CJD;
XX      Creutzfeldt-Jacob disease; kuru; GSS; FFI; fatal familial insomnia;
XX      Gerstmann-Straussler-Scheinker disease; hamster; human.
XX
XX      Homo sapiens.
XX
XX      W09716728-A1.
XX

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PD      09-MAY-1997.
XX
XX      28-OCT-1996; 96MO-US17462.
XX
XX      02-NOV-1995; 95US-0556823.
XX
XX      (REGC ) UNTV CALIFORNIA.
XX
XX      Cohen FE, Kaneko K, Prusiner SB;
XX
XX      WPI; 1997-272248/24.
XX
XX      Prion proteins (PrPs) having at least one alpha-helical domain -
XX      used in assays for screening compounds able to inhibit or decrease
XX      the binding of PrP peptide(s) to cellular prion proteins or
XX      peptide(s)
XX
XX      Claim 11; Page 7-38; 50pp; English.
XX
XX      The present sequence represents a prion protein (PrP) peptide.
XX      PrP has an ability to induce a conformational change in cellular
XX      prion protein (PrP-c). Methods, for screening compounds which
XX      inhibit the binding of PrP-c to a PrP peptide, are used for screening
XX      for drugs that may be useful in the treatment prion-related disease
XX      e.g. scrapie, BSE (bovine spongiform encephalopathy), CJD
XX      (Creutzfeldt-Jacob disease), kuru, GSS (Gerstmann-Straussler-Scheinker
XX      disease) and FFI (fatal familial insomnia).
XX
XX      Sequence 142 AA:
XX
XX      Query Match 100.0%; Score 72; DB 18; Length 142;
XX      Best Local Similarity 100.0%; Pred. No. 8e-06;
XX      Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX
XX      QY 1 CITOYERESQAYY 13
XX      |||
XX      125 cityeresgayy 137
XX
XX      RESULT 3
XX      AAB07318 standard; protein; 208 AA.
XX
XX      AAB07318;
XX
XX      17-OCT-2000 (first entry)
XX
XX      Human prion protein sequence.
XX
XX      Human; prion protein; transmissible spongiform encephalopathy;
XX      bovine spongiform encephalopathy; BSE diagnosis; TSE; PrP.
XX
XX      Homo sapiens.
XX
XX      Key Location/Qualifiers
XX      Region 29..69
XX      /note= "Repeat region consisting of tandem repeats
XX      of repeat unit: PHGGGWGQ (AAB07319)"
XX      Disulfide-bond 157..192
XX      Modified-site 208
XX      /note= "C-terminal phospho-inositol glycolipid
XX      membrane anchor (-GPI)"
XX
XX      W0200029850-A1.
XX
XX      25-MAY-2000.
XX
XX      27-OCT-1999; 99WO-FI00897.
XX
XX      17-NOV-1998; 98FI-0002481.
XX
XX      (WALL-) WALLAC OY.
XX

```


CC replaced with the corresponding human PrP sequence. The chimeric
 CC PrP, designated MhuMPrP, differs from the MOPrP by 9 AA between
 CC residues 96 and 167.

XX Sequence 253 AA:

Query Match 100.0%; Score 72; DB 17; Length 253;
 Best Local Similarity 100.0%; Pred. No. 1.5e-05;
 Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITOYERESQAYY 13
 |||||||||||||
 Db 214 citgyeresqayy 226

RESULT 6

AAW69660 standard; protein; 253 AA.

XX AAW69660;

XX 19-OCT-1998 (first entry)

XX Human prion protein HuPrP.

XX Human; prion protein; PrP; transgenic animal; artificial gene;

XX Creutzfeldt Jakob disease; CJD; neurodegenerative disease.

XX Homo sapiens.

XX US5792901-A.

XX 11-AUG-1998.

XX 30-JUN-1996; 96US-0692892.

XX 30-JUL-1996; 96US-0692892.

XX 13-MAY-1994; 94US-0242188.

XX 31-JUL-1995; 95US-0509261.

XX 31-AUG-1995; 95US-0521992.

XX (REGC) UNIV CALIFORNIA.

XX Prusiner SB, Scott MR, Telling GC;

XX WPI; 1998-456207/39.

XX Transgenic mouse with altered PrP gene - for detecting

XX disease-causing prions

XX Example 8; Fig 3; 37pp; English.

CC A transgenic mouse has been developed which comprises a genome in which
 CC both alleles of an endogenous PrP (prion protein) gene of the mouse
 CC are ablated, the genome containing operatively inserted all exogenous
 CC non-mouse PrP gene. The mouse is susceptible to infection with prions
 CC which generally only infect a genetically diverse mammal due to the
 CC presence of the exogenous PrP gene and ablated endogenous PrP gene. It
 CC exhibits symptoms of prion disease within 200 days or less after
 CC inoculation with prions which generally only infect a genetically
 CC diverse mammal. Also described in the present invention are: (A) a
 CC method of producing the transgenic mouse; and (B) determining the
 CC presence of infectious prions in a sample obtained from a bovine. The
 CC transgenic mouse is used to detect for Creutzfeldt Jakob disease (CJD)
 CC a fatal neurodegenerative disease of humans caused by prions. The
 CC present sequence represents human prion protein (HuPrP), used in an
 CC example from the present invention.

XX Sequence 253 AA:

Query Match 100.0%; Score 72; DB 19; Length 253;

Best Local Similarity 100.0%; Pred. No. 1.5e-05;
 Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITOYERESQAYY 13
 |||||||||||||
 Db 214 citgyeresqayy 226

RESULT 7

AAW07994 standard; protein; 253 AA.

XX AAW07994;

XX 08-JUL-1999 (first entry)

XX Human prion protein.

XX Prion protein; PrP; human; polyclonal antiserum; immunoassay;

XX detection; bovine; murine.

XX Homo sapiens.

XX DE19745443-A1.

XX 22-APR-1999.

XX 15-OCT-1997; 97DE-1045443.

XX 15-OCT-1997; 97DE-1045443.

XX (HERZ/) HERZOG-MESMER A.

XX Kiselev OI, Mesmer AH, Scheller A;

XX WPI; 1999-255775/22.

XX Diagnostic polyclonal antiserum specific for prion protein -

XX obtained by immunisation with metal-containing polypeptide

XX Claim 3; Fig 1; 12pp; German.

XX This invention describes a novel process for producing a polyclonal
 CC antiserum against a human or animal prion protein (PrP) which can be
 CC used in immunoassays for detecting PrP's. The method comprises (a)
 CC selecting a polypeptide that has a length of at least 10 amino acids and
 CC has an amino acid sequence at least 70% homologous to that of human,
 CC bovine or murine PrP in a region of at least 10 consecutive amino acids
 CC (b) binding a metal to the polypeptide by reaction with a metal compound
 CC and (c) injecting the metal-containing polypeptide into a host animal,
 CC optionally together with adjuvants, to induce production of a polyclonal
 CC antiserum.

XX Sequence 253 AA:

Query Match 100.0%; Score 72; DB 20; Length 253;
 Best Local Similarity 100.0%; Pred. No. 1.5e-05;
 Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITOYERESQAYY 13
 |||||||||||||
 Db 214 citgyeresqayy 226

RESULT 8

AAW85901 standard; peptide; 253 AA.

XX AAW85901;

XX 12-FEB-1999 (first entry)

DE Human prion protein (Prp) sequence.
 XX
 XX Prp: Prp(Sc); scrapie; isoform: antibody; prion; CJD; screening;
 KM Creutzfeldt-Jakob disease; infectivity; assay; pharmaceutical; food;
 XX cosmetic; therapeutic; human.
 XX
 OS Homo sapiens.
 XX
 PN US5846533-A.
 XX
 PD 08-DEC-1998.
 XX
 PF 13-SEP-1996; 96US-0713939.
 XX
 PR 13-SEP-1996; 96US-0713939.
 PR 14-SEP-1995; 95US-0528104.
 XX
 PA (SCRI) SCRIPPS RES INST.
 PA (REGC) UNIV CALIFORNIA.
 XX
 PI Burton DR, Prusiner SB, Williamson RA;
 XX
 DR WPI: 1999-058996/05.
 XX
 PT Antibody specific for scrapie isoform of prion protein - useful for
 PT diagnosis and therapy
 XX
 PS Disclosure; Columns 41-42; 58pp; English.
 XX
 CC This represents a human prion protein (Prp) sequence. The invention
 CC relates to an antibody that is capable of binding to native Prp(Sc), the
 CC scrapie isoform of Prp. The antibody is produced by a method that
 CC comprises synthesizing a library of antibodies on phages, contacting the
 CC phages with a composition containing Prp proteins, isolating phages that
 CC bind to native Prp(Sc) in situ, obtaining an antibody from the phages,
 CC and optionally analysing the phages to determine a nucleic acid sequence
 CC encoding an amino acid sequence to which the native Prp(Sc) binds. The
 CC antibody is used to detect disease-associated Prp, especially in
 CC Creutzfeldt-Jakob disease (CJD) and distinguish it from normal Prp. They
 CC can also be used to neutralise the infectivity of Prp(Sc). Assays using
 CC the antibodies can be used to screen for disease-associated Prp in
 CC pharmaceutical products, foods and cosmetics or for therapeutic purposes.
 CC
 XX
 SQ Sequence 253 AA:
 XX
 QY 1 CITOVERESQAYY 13
 DB 214 cltqyeresqayy 226
 XX
 RESULT 9
 AAB15035
 ID AAB15035 standard; Protein; 253 AA.
 XX
 AC AAB15035;
 XX
 DT 18-DEC-2000 (first entry)
 XX
 DE Human prion protein.
 XX
 KM Prion; Prp; guanidine thiocyanate; gdnSCN; TSE; BSE;
 KM transmissible spongiform encephalopathy;
 XX bovine spongiform encephalopathy; sheep; cattle; human.
 OS Homo sapiens.
 XX
 XX Key Location/Qualifiers
 FH Peptide 1..22
 FT

FT /note="N terminal signal peptide"
 FT Protein 23..231
 FT /label="Mature protein"
 FT Cleavage-site 60..89
 FT /note="Protease sensitive site"
 FT Peptide 232..253
 FT /note="C terminal signal peptide"
 XX
 PN WO200048003-A1.
 XX
 PD 17-AUG-2000.
 XX
 PF 09-FEB-2000; 2000WO-NL00079.
 XX
 PR 11-FEB-1999; 99EP-0200391.
 XX
 PA (DIEN-) STICHTING DIENST LANDBOUWKUNDIG ONDERZOE.
 PA
 XX
 PI Garsen GJ, Jacobs JG, Langeveld JPM, Smits MA, Van Keulen LJM;
 PI Schreuder BEC, Bossers A;
 XX
 DR WPI: 2000-506099/45.
 XX
 PT Use of guanidine thiocyanate for reducing risk of false-positive
 PT results in testing mammalian sample for aberrant prion protein, useful
 PT for detection of transmissible spongiform encephalopathies -
 XX
 PS Disclosure; Fig 1; 49pp; English.
 XX
 CC The present invention relates to a method for reducing the risk of
 CC scoring a false positive test result in testing a sample for aberrant
 CC prion protein. The method involves the use of guanidine thiocyanate
 CC (gdnSCN) or its functional equivalent. This test is highly useful for
 CC testing for transmissible spongiform encephalopathies (TSEs) such as
 CC BSE (bovine spongiform encephalopathy). The method allows a faster,
 CC simpler and more reliable method for monitoring cattle and sheep for
 CC the presence of aberrant prion protein before it reaches the human
 CC and animal food chain. The present sequence is the human prion protein.
 CC
 XX
 SQ Sequence 253 AA:
 XX
 QY 1 CITOVERESQAYY 13
 DB 214 cltqyeresqayy 226
 XX
 RESULT 10
 AAB06272
 ID AAB06272 standard; Protein; 253 AA.
 XX
 AC AAB06272;
 XX
 DT 16-OCT-2000 (first entry)
 XX
 DE Human Prp prion protein.
 XX
 KM Human; Prp; prion; Creutzfeldt-Jakob disease; CJD; neuroprotective;
 KM vaccine; beta-form Prp; Kuru; transmissible mink encephalopathy;
 XX bovine spongiform encephalopathy; BSE.
 OS Homo sapiens.
 XX
 PN WO2000026238-A2.
 XX
 PD 11-MAY-2000.
 XX
 PF 02-NOV-1999; 99WO-GB03617.
 XX

PR 04-NOV-1998; 98GB-0024091.
 PR 18-MAR-1999; 99GB-0006217.
 XX
 PA (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD.
 PI Collinge J, Clarke AR, Jackson GS;
 XX
 DR WPI: 2000-365570/31.
 DR N-PSDB; AAA57174.
 XX
 PT Novel method of producing beta-form prion proteins, related antibodies,
 PT and binding agents useful in treatment and diagnosis of prion diseases
 PT
 PS
 XX
 PS Disclosure: Fig 1; 115pp; English.
 CC
 CC The present sequence is the human prion protein encoded by the PrP
 CC gene. A beta-form of the protein has been produced which has more
 CC beta-sheet than alpha-helix structure, can exist as a monomer and
 CC can retain solubility in an aqueous solution in the absence of a
 CC denaturant. The beta-form PrP, a beta-form binding agent or aggregate can
 CC be used in the preparation or manufacture of a composition for the
 CC prevention, treatment and/or diagnosis of a prion disease, e.g. Kuru,
 CC Creutzfeldt-Jakob disease (CJD), transmissible mink encephalopathy,
 CC chronic wasting disease of mule deer and elk, and bovine spongiform
 CC encephalopathy (BSE). By measuring the levels of beta-form in a sample,
 CC agents capable of preventing, reducing and/or reversing the conversion of
 CC a PrP to a beta-form can be identified. The beta-form of the PrP or a
 CC non-fibrillar aggregate can be used as a vaccine against a prion disease.
 CC The beta-form can also be used to diagnose a predisposition to or the
 CC presence of a prion disease by monitoring aggregation.
 CC
 XX
 SQ Sequence 253 AA;

Query Match 100.0%; Score 72; DB 21; Length 253;
 Best Local Similarity 100.0%; Pred. No. 1.5e-05;
 Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITOYERESQAYY 13
 ||||||||||||
 DB 214 citgyeresqayy 226

RESULT 11
 AAY81485
 ID AAY81485 standard; Protein; 253 AA.
 XX
 AC AAY81485;
 XX
 DT 03-JUL-2000 (first entry)
 XX
 DE Human prion protein.
 XX
 KM Prion protein; human; antibody; monoclonal; prion-related disease;
 KM Creutzfeldt-Jakob disease; CJD; diagnosis.
 XX
 OS Homo sapiens.
 XX
 PM JP2000060551-A.
 XX
 PD 29-FEB-2000.
 XX
 PF 13-AUG-1998; 98JP-0241145.
 XX
 PR 13-AUG-1998; 98JP-0241145.
 XX
 PA (SECK) SEIKAGAKU KOGYO CO LTD.
 XX
 DR WPI: 2000-249674/22.
 XX
 PT Anti-prion antibody specific for a particular amino acid sequence -
 PT useful in diagnosis and research of prion related diseases

XX
 PS Disclosure: Page 8; 9pp; Japanese.
 XX
 CC The invention relates to an anti-prion protein antibody, preferably a
 CC mouse-derived monoclonal antibody, which binds residues 96-114 of human
 CC prion protein (peptide sequence given in AAY81484). The anti-prion
 CC antibody is useful as a research tool and for the diagnosis of
 CC prion-related diseases such as Creutzfeldt-Jakob disease (CJD). The
 CC antibody is highly specific for human prion protein, and is relatively
 CC inexpensive to manufacture. This sequence represents full-length human
 CC prion protein.
 CC
 XX
 SQ Sequence 253 AA;

Query Match 100.0%; Score 72; DB 21; Length 253;
 Best Local Similarity 100.0%; Pred. No. 1.5e-05;
 Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITOYERESQAYY 13
 ||||||||||||
 DB 214 citgyeresqayy 226

RESULT 12
 AAB72338
 ID AAB72338 standard; Peptide; 253 AA.
 XX
 AC AAB72338;
 XX
 DT 17-MAY-2001 (first entry)
 XX
 DE Human prion protein cellular form (PrPc) amino acid sequence.

XX
 KM Prion protein; cellular form; PrPc; stable region; antibody; BSE; CJD;
 KM prion disease; spongiform encephalopathies; Scrapie; human;
 KM bovine spongiform encephalopathy; BSE; Creutzfeldt-Jakob disease.
 XX
 OS Homo sapiens.

XX
 FH Key Location/Qualifiers
 FT Region 176..221
 FT /note=Stable region, specifically claimed in claim 3"

XX WO200107479-A2.
 XX
 PD 01-FEB-2001.
 XX
 PF 25-JUL-2000; 2000WO-GB02873.
 XX
 PR 27-JUL-1999; 99GB-0017491.
 PR 30-JUL-1999; 99GB-0017878.
 XX

PA (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD.

XX Collinge J, Clarke AR, Waltho JP, Jackson GS, Hosszu LLP;

XX WPI: 2001-168538/17.

XX
 PT New prion peptide for treating, preventing and/or diagnosing prion
 PT diseases e.g. scrapie in sheep, bovine spongiform encephalopathies in
 PT cows and Creutzfeldt-Jakob disease in humans -
 XX

PS Claim 3; Fig 5; 69pp; English.

XX This invention relates to a peptide fragment of a cellular form of prion
 CC protein PrPc located around a disulphide bond found in PrPc. The stable
 CC structure is a specific marker of PrPc but not soluble prion protein
 CC (PrPsc). The PrPc peptide sequences can be used to generate an antibody
 CC or binding agent that binds PrPc. The antibody is used to detect or
 CC remove PrPc, and may be used in preventative medicine. The antibody may
 CC be used in the prevention, treatment or diagnosis of a prion disease,
 CC e.g. spongiform encephalopathies, such as Scrapie in sheep, bovine

CC spongiform encephalopathies (BSE) in cows, and Creutzfeldt-Jakob disease
CC (CJD) in humans. The present sequence represents the cellular form of
CC human prion protein, the stable region of the protein may be used in the
CC production of anti-PrPc antibodies.

XX Sequence 253 AA:

Query Match 100.0%; Score 72; DB 22; Length 253;

Best Local Similarity 100.0%; Pred. No. 1.5e-05;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITOVERESQAVY 13
|||||

Db 214 citqyeresqay 226

RESULT 13

AAB72339
ID AAB72339 standard; Peptide: 253 AA.

XX AAB72339;

XX 17-MAY-2001 (first entry)

XX Chimpanzee prion protein cellular form (PrPc) amino acid sequence.

XX Prion protein; cellular form; PrPc; stable region; antibody; BSE; CJD;

XX prion disease; spongiform encephalopathies; Scrapie; chimpanzee;

XX bovine spongiform encephalopathy; BSE; Creutzfeldt-Jakob disease.

XX Pan paniscus.

XX Key Location/Qualifiers

XX Region 176..221
/note="Stable region, specifically claimed in claim 3"

XX MO200107479-A2.

XX PD 01-FEB-2001.

XX PF 25-JUL-2000; 2000WO-GB02873.

XX PR 27-JUL-1999; 99GB-0017491.

XX PR 30-JUL-1999; 99GB-0017878.

XX PA (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD.

XX PI Collinge J, Clarke AR, Waltho JP, Jackson GS, Hosszu LLP;

XX DR MPI; 2001-168538/17.

XX PT New prion peptide for treating, preventing and/or diagnosing prion

XX PT diseases e.g. scrapie in sheep, bovine spongiform encephalopathies in

XX PT cows and Creutzfeldt-Jakob disease in humans

XX PS Claim 3; Fig 5; 69pp; English.

XX CC This invention relates to a peptide fragment of a cellular form of prion

XX CC protein PrPc located around a disulphide bond found in PrPc. The stable

XX CC structure is a specific marker of PrPc but not soluble prion protein

XX CC (PrPsc). The PrPc peptide sequences can be used to generate an antibody

XX CC or binding agent that binds PrPc. The antibody is used to detect or

XX CC remove PrPc, and may be used in preventative medicine. The antibody may

XX CC be used in the prevention, treatment or diagnosis of a prion disease,

XX CC e.g. spongiform encephalopathies, such as Scrapie in sheep, bovine

XX CC spongiform encephalopathies (BSE) in cows, and Creutzfeldt-Jakob disease

XX CC (CJD) in humans. The present sequence represents the cellular form of

XX CC chimpanzee prion protein, the stable region of the protein may be used in

XX CC the production of anti-PrPc antibodies.

XX SQ Sequence 253 AA:

Query Match 100.0%; Score 72; DB 22; Length 253;
Best Local Similarity 100.0%; Pred. No. 1.5e-05;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITOVERESQAVY 13
|||||

Db 214 citqyeresqay 226

RESULT 14

AAB72340
ID AAB72340 standard; Peptide: 253 AA.

XX AAB72340;

XX 17-MAY-2001 (first entry)

XX Orangutan prion protein cellular form (PrPc) amino acid sequence.

XX Prion protein; cellular form; PrPc; stable region; antibody; BSE; CJD;

XX prion disease; spongiform encephalopathies; Scrapie; orangutan;

XX bovine spongiform encephalopathy; BSE; Creutzfeldt-Jakob disease.

XX Pongo pygmaeus.

XX Key Location/Qualifiers

XX Region 176..221
/note="Stable region, specifically claimed in claim 3"

XX MO200107479-A2.

XX PD 01-FEB-2001.

XX PF 25-JUL-2000; 2000WO-GB02873.

XX PR 27-JUL-1999; 99GB-0017491.

XX PR 30-JUL-1999; 99GB-0017878.

XX PA (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD.

XX PI Collinge J, Clarke AR, Waltho JP, Jackson GS, Hosszu LLP;

XX DR MPI; 2001-168538/17.

XX PT New prion peptide for treating, preventing and/or diagnosing prion

XX PT diseases e.g. scrapie in sheep, bovine spongiform encephalopathies in

XX PT cows and Creutzfeldt-Jakob disease in humans

XX PS Claim 3; Fig 5; 69pp; English.

XX CC This invention relates to a peptide fragment of a cellular form of prion

XX CC protein PrPc located around a disulphide bond found in PrPc. The stable

XX CC structure is a specific marker of PrPc but not soluble prion protein

XX CC (PrPsc). The PrPc peptide sequences can be used to generate an antibody

XX CC or binding agent that binds PrPc. The antibody is used to detect or

XX CC remove PrPc, and may be used in preventative medicine. The antibody may

XX CC be used in the prevention, treatment or diagnosis of a prion disease,

XX CC e.g. spongiform encephalopathies, such as Scrapie in sheep, bovine

XX CC spongiform encephalopathies (BSE) in cows, and Creutzfeldt-Jakob disease

XX CC (CJD) in humans. The present sequence represents the cellular form of

XX CC orangutan prion protein, the stable region of the protein may be used in

XX CC the production of anti-PrPc antibodies.

XX SQ Sequence 253 AA:

Query Match 100.0%; Score 72; DB 22; Length 253;

Best Local Similarity 100.0%; Pred. No. 1.5e-05;

Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITOVERESQAVY 13
|||||

Db 214 ciltgyeresqayy 226

RESULT 15

ID AAB72341
AAB72341 standard; Peptide: 253 AA.

AC AAB72341;

DT 17-MAY-2001 (first entry)

DE Gorilla prion protein cellular form (PrPc) amino acid sequence.

KW Prion protein; cellular form; PrPc; stable region; antibody; BSE; CJD;

KW prion disease; spongiform encephalopathies; Scrapie; gorilla;

OS Gorilla gorilla.

Key Location/Qualifiers

FT Region 176..221
/note="Stable region, specifically claimed in claim 3"

PN WO200107479-A2.

PD 01-FEB-2001.

PF 25-JUL-2000; 2000MO-GB02873.

PR 27-JUL-1999; 99GB-0017491.

PR 30-JUL-1999; 99GB-0017878.

PA (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD.

PI Collinge J, Clarke AR, Maltho JP, Jackson GS, Hosszu LLP;

DR WPI; 2001-166538/17.

PT New prion peptide for treating, preventing and/or diagnosing prion

PT diseases e.g. scrapie in sheep, bovine spongiform encephalopathies in

PT cows and Creutzfeldt-Jakob disease in humans

PS Claim 3; Fig 5; 69pp; English.

CC This invention relates to a peptide fragment of a cellular form of prion

CC protein PrPc located around a disulphide bond found in PrPc. The stable

CC structure is a specific marker of PrPc but not soluble prion protein

CC (PrPsc). The PrPc peptide sequences can be used to generate an antibody

CC or binding agent that binds PrPc. The antibody is used to detect or

CC remove PrPc, and may be used in preventative medicine. The antibody may

CC be used in the prevention, treatment or diagnosis of a prion disease,

CC e.g. spongiform encephalopathies, such as Scrapie in sheep, bovine

CC spongiform encephalopathies (BSE) in cows, and Creutzfeldt-Jakob disease

CC (CJD) in humans. The present sequence represents the cellular form of

CC gorilla prion protein, the stable region of the protein may be used in

CC the production of anti-PrPc antibodies.

CC Sequence 253 AA;

CC

CC

Query Match 100.0%; Score 72; DB 22; Length 253;

Best Local Similarity 100.0%; Pred. NO. 1.5e-05;

Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITOYERESQAYY 13

DB 214 ciltgyeresqayy 226

Search completed: October 25, 2001, 08:51:31
Job time: 309 sec

GenCore version 4.5
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OM protein - protein search, using sw model

Run on: October 25, 2001, 08:49:12 ; Search time 20.34 seconds

(without alignments)
13.160 Million cell updates/sec

Title: US-09-576-724-1

Perfect score: 72
Sequence: 1 CITYERESQAYY 13Scoring table: BLOSUM62
Gapop 10.0, Gapext 0.5

Searched: 197339 seqs, 20590346 residues

Total number of hits satisfying chosen parameters: 197339

Minimum DB seq length: 0
Maximum DB seq length: 2000000000Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database :

Issued_Patents_AA:*
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3: /cgn2_6/ptodata/2/1aa/6A.COMB.pep:*
4: /cgn2_6/ptodata/2/1aa/6B.COMB.pep:*
5: /cgn2_6/ptodata/2/1aa/PTCUTS.COMB.pep:*
6: /cgn2_6/ptodata/2/1aa/backfills1.pep:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No	Score	Query Match	Length	DB ID	Description
1	72	100.0	22	1	US-08-244-701B-37
2	72	100.0	142	1	US-08-556-823-10
3	72	100.0	253	1	US-08-242-188-2
4	72	100.0	253	1	US-08-509-261A-2
5	72	100.0	253	1	US-08-660-626-8
6	72	100.0	253	1	US-08-692-892-2
7	72	100.0	253	2	US-08-713-939A-2
8	72	100.0	253	2	US-08-868-162A-22
9	72	100.0	253	4	US-09-031-168-8
10	72	100.0	253	4	US-09-128-450-20
11	69	95.8	15	1	US-08-244-701B-48
12	69	95.8	22	1	US-08-244-701B-33
13	69	95.8	22	1	US-08-244-701B-35
14	69	95.8	255	1	US-08-242-188-4
15	69	95.8	255	1	US-08-509-261A-4
16	69	95.8	255	1	US-08-660-626-10
17	69	95.8	255	1	US-08-692-892-4
18	69	95.8	255	2	US-08-713-939A-4
19	69	95.8	255	2	US-08-868-162A-24
20	69	95.8	255	4	US-09-031-168-10
21	69	95.8	256	4	US-09-128-450-22
22	69	95.8	254	4	US-09-128-450-21
23	65	90.3	254	1	US-08-242-188-1
24	65	90.3	254	1	US-08-509-261A-1
25	65	90.3	254	1	US-08-660-626-7
26	65	90.3	254	1	US-08-692-892-1
27	65	90.3	254	2	US-08-713-939A-1

28	65	90.3	254	2	US-08-868-162A-21	Sequence 21, Appl
29	65	90.3	254	4	US-09-031-168-7	Sequence 7, Appl
30	65	90.3	254	4	US-09-128-450-19	Sequence 19, Appl
31	65	90.3	254	4	US-09-128-450-28	Sequence 28, Appl
32	65	90.3	263	1	US-08-242-188-3	Sequence 3, Appl
33	65	90.3	263	1	US-08-509-261A-3	Sequence 3, Appl
34	65	90.3	263	1	US-08-660-626-9	Sequence 3, Appl
35	65	90.3	263	1	US-08-692-892-3	Sequence 3, Appl
36	65	90.3	263	2	US-08-713-939A-3	Sequence 3, Appl
37	65	90.3	263	2	US-08-868-162A-23	Sequence 23, Appl
38	65	90.3	263	4	US-09-031-168-9	Sequence 9, Appl
39	61	84.7	142	1	US-08-556-823-2	Sequence 2, Appl
40	61	84.7	254	4	US-09-128-450-26	Sequence 26, Appl
41	55	76.4	24	1	US-08-244-701B-62	Sequence 62, Appl
42	54	75.0	208	4	US-09-128-450-18	Sequence 18, Appl
43	43	59.7	528	3	US-08-688-988-6	Sequence 6, Appl
44	42	58.3	437	3	US-08-688-988-8	Sequence 8, Appl
45	42	58.3	524	3	US-08-688-988-34	Sequence 34, Appl

ALIGNMENTS

RESULT 1
US-08-244-701B-37
; Sequence 37, Application US/08244701B
; Patent No. 5773572
; GENERAL INFORMATION:
; APPLICANT: Fishleigh, Robert V.
; APPLICANT: Robson, Barry
; TITLE OF INVENTION: Fragments of Prion Proteins
; NUMBER OF SEQUENCES: 57
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Pennie & Edmonds
; STREET: 1155 Avenue of the Americas
; CITY: New York
; STATE: New York
; COUNTRY: U.S.A.
; ZIP: 10036
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/244,701B
; FILING DATE: 02-JUN-1994
; CLASSIFICATION: 436
; ATTORNEY/AGENT INFORMATION:
; NAME: Pannucci, Allan A.
; REGISTRATION NUMBER: 30,256
; REFERENCE/DOCKET NUMBER: 8080-007
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (212) 790-9090
; TELEFAX: (212) 869-8864/9741
; TELEX: 66141 PENNIE
; INFORMATION FOR SEQ ID NO: 37:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 22 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; FEATURE:
; NAME/KEY: Modified-site
; LOCATION: 1
; OTHER INFORMATION: /label=X
; OTHER INFORMATION: /note=X may be absent or present independently
; OTHER INFORMATION: of Y and denotes one or more amino acid(s)
; FEATURE:
; NAME/KEY: Modified-site
; LOCATION: 22

OTHER INFORMATION: /label=Y
OTHER INFORMATION: /note=Y may be absent or present independently
OTHER INFORMATION: of X and denotes one or more amino acid(s)
US-08-244-701B-37

Query Match 100.0%; Score 72; DB 1; Length 22;
Best/Local Similarity 100.0%; Pred. No. 4.2e-07;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITOYERESQAY 13
|||||
DB 3 CITOYERESQAY 15

RESULT 2
US-08-556-823-10
Sequence 10, Application US/08556823
Patent No. 5750361

GENERAL INFORMATION:
APPLICANT: Stanley B. Prusiner
APPLICANT: Kiyotoshi Kaneko
APPLICANT: Fred E. Cohen
TITLE OF INVENTION: Formation and use of prion protein
TITLE OF INVENTION: 10
NUMBER OF SEQUENCES: 10
CORRESPONDENCE ADDRESSES:
ADDRESS: Fish & Richardson
STREET: 2200 Sand Hill Road, Suite 100
CITY: Menlo Park
STATE: California
COUNTRY: USA
ZIP: 94025
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Asclit
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/556, 823
FILING DATE:
CLASSIFICATION: 530
ATTORNEY/AGENT INFORMATION:
NAME: Valeta Gregg
REGISTRATION NUMBER: 35,127
REFERENCE/DOCKET NUMBER: 075332/003001
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 322-5070
TELEFAX: (415) 854-0875
INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
LENGTH: 142 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: peptide
US-08-556-823-10

Query Match 100.0%; Score 72; DB 1; Length 142;
Best/Local Similarity 100.0%; Pred. No. 3.6e-06;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITOYERESQAY 13
|||||
DB 125 CITOYERESQAY 137

RESULT 3
US-08-242-188-2
Sequence 2, Application US/08242188
Patent No. 5565186
GENERAL INFORMATION:
APPLICANT: Prusiner, Stanley B.

APPLICANT: Scott, Michael R.
APPLICANT: Telling, Glenn
TITLE OF INVENTION: METHOD OF DETECTING PRIONS IN A SAMPLE
TITLE OF INVENTION: AND TRANSGENIC ANIMAL USED FOR SAME
NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESSES:
ADDRESS: Karl Bosicevic
STREET: 2200 Sand Hill Road
CITY: Menlo Park
STATE: CA
COUNTRY: USA
ZIP: 94025

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/242,188
FILING DATE: 13-MAY-1994
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Bosicevic, Karl
REGISTRATION NUMBER: 28,807
REFERENCE/DOCKET NUMBER: 06510/014001
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 854-5277
TELEFAX: (415) 854-0875
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 253 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
ORIGINAL SOURCE:
ORGANISM: HUMAN PRION PROTEIN, HuPrP
US-08-242-188-2

Query Match 100.0%; Score 72; DB 1; Length 253;
Best/Local Similarity 100.0%; Pred. No. 7.1e-06;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITOYERESQAY 13
|||||
DB 214 CITOYERESQAY 226

RESULT 4
US-08-509-261A-2
Sequence 2, Application US/08509261A
Patent No. 5763244

GENERAL INFORMATION:
APPLICANT: Prusiner, Stanley B.
APPLICANT: Scott, Michael R.
TITLE OF INVENTION: Method of Detecting Prions
TITLE OF INVENTION: In a Sample and Transgenic Animal Used for
NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESSES:
ADDRESS: Bosicevic & Reed, LLP
STREET: 285 Hamilton Avenue, Suite 200
CITY: Palo Alto
STATE: CA
COUNTRY: USA
ZIP: 94301
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSeq for Windows Version 2.0
CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/509,261A
FILING DATE: 31-JUL-1995
CLASSIFICATION: 800
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Bozicevic, Karl
REGISTRATION NUMBER: 28,807
REFERENCE/DOCKET NUMBER: 6510-030001
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650-327-3400
TELEFAX: 650-327-3231
TELEX:
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 253 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
US-08-509-261A-2

Query Match 100.0%; Score 72; DB 1; Length 253;
Best Local Similarity 100.0%; Pred. No. 7,1e-06;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CITOYERESQAYY 13
|||||
Db 214 CITOYERESQAYY 226

RESULT 5
US-08-660-626-8
Sequence 8, Application US/08660626
Patent No. 5789655
GENERAL INFORMATION:
APPLICANT: Stanley B. Prusiner
APPLICANT: Glenn C. Telling
APPLICANT: Fred E. Cohen
APPLICANT: Michael R. Scott
TITLE OF INVENTION: TRANSGENIC ANIMALS EXPRESSING
TITLE OF INVENTION: EPIPTOPE-TAGGED PROTEINS
NUMBER OF SEQUENCES: 13
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson
STREET: 2200 Sand Hill Road, Suite 100
CITY: Menlo Park
STATE: California
COUNTRY: USA
ZIP: 94025
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: ASCII
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/660,626
FILING DATE:
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Valeta Gregg
REGISTRATION NUMBER: 35,127
REFERENCE/DOCKET NUMBER: 07532/003001
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 322-5070
TELEFAX: (415) 854-0875
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
LENGTH: 253 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear

MOLECULE TYPE: peptide
ORIGINAL SOURCE:
ORGANISM: HUMAN PRION PROTEIN, HuPrP
US-08-660-626-8

Query Match 100.0%; Score 72; DB 1; Length 253;
Best Local Similarity 100.0%; Pred. No. 7,1e-06;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CITOYERESQAYY 13
|||||
Db 214 CITOYERESQAYY 226

RESULT 6
US-08-692-892-2
Sequence 2, Application US/08692892
Patent No. 5792901
GENERAL INFORMATION:
APPLICANT: Prusiner, Stanley B.
APPLICANT: Scott, Michael R.
APPLICANT: Telling, Glenn
TITLE OF INVENTION: DETECTING PRIONS IN A SAMPLE AND
TITLE OF INVENTION: PRION PREPARATION AND TRANSGENIC ANIMAL USED FOR SAME
NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
ADDRESSEE: Karl Bozicevic
STREET: 2200 Sand Hill Road
CITY: Menlo Park
STATE: CA
COUNTRY: USA
ZIP: 94025
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/692,892
FILING DATE: 30-JULY-1996
CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: Bozicevic, Karl
REGISTRATION NUMBER: 28,807
REFERENCE/DOCKET NUMBER: 06510/056001
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 322-5070
TELEFAX: (415) 854-0875
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 253 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
ORIGINAL SOURCE:
ORGANISM: HUMAN PRION PROTEIN, HuPrP
US-08-692-892-2

Query Match 100.0%; Score 72; DB 1; Length 253;
Best Local Similarity 100.0%; Pred. No. 7,1e-06;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CITOYERESQAYY 13
|||||
Db 214 CITOYERESQAYY 226

RESULT 7
US-08-713-939A-2
Sequence 2, Application US/08713939A

Patent No. 5846533
GENERAL INFORMATION:
APPLICANT: Prusiner, Stanley B.
APPLICANT: Williamson, R. Anthony
APPLICANT: Burton, Dennis R.
TITLE OF INVENTION: ANTIBODIES SPECIFIC FOR NATIVE PrP
NUMBER OF SEQUENCES: 86
CORRESPONDENCE ADDRESSES:
ADDRESSEE: Fish & Richardson P.C.
STREET: 2200 Sand Hill Road
CITY: Menlo Park
STATE: CA
COUNTRY: U.S.A.
ZIP: 94025
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FASTSEQ Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/713,939A
FILING DATE: 13-SEP-1996
CLASSIFICATION: 436
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Bozicevic, Karl
REGISTRATION NUMBER: 28,807
REFERENCE/DOCKET NUMBER: 06510/059001
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-854-5277
TELEFAX: 415-854-0875
TELEX:
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 253 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
US-08-713-939A-2

Query Match 100.0%; Score 72; DB 2; Length 253;
Best Local Similarity 100.0%; Pred. No. 7.1e-06;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CITOYERESQAY 13
|||||
DB 214 CITOYERESQAY 226

RESULT 8
US-08-868-162A-22
Sequence 22, Application US/08868162A
Patent No. 5962669
GENERAL INFORMATION:
APPLICANT: Prusiner, Stanley
APPLICANT: Cohen, Fred
APPLICANT: James, Thomas
APPLICANT: Kaneko, Kiyotoshi
TITLE OF INVENTION: Prion Protein Modulator Factor
NUMBER OF SEQUENCES: 24
CORRESPONDENCE ADDRESSES:
ADDRESSEE: Bozicevic & Reed, LLP
STREET: 285 Hamilton Avenue, Suite 200
CITY: Palo Alto
STATE: CA
COUNTRY: USA
ZIP: 94301
COMPUTER READABLE FORM:

MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FASTSEQ for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/868,162A
FILING DATE: 03-JUN-1997
CLASSIFICATION: 536
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Bozicevic, Karl
REGISTRATION NUMBER: 28,807
REFERENCE/DOCKET NUMBER: 6510-083001
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650-327-3400
TELEFAX: 650-327-3231
TELEX:
INFORMATION FOR SEQ ID NO: 22:
SEQUENCE CHARACTERISTICS:
LENGTH: 253 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
ORIGINAL SOURCE:
ORGANISM: HUMAN PRION PROTEIN, HuPrP
US-08-868-162A-22

Query Match 100.0%; Score 72; DB 2; Length 253;
Best Local Similarity 100.0%; Pred. No. 7.1e-06;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CITOYERESQAY 13
|||||
DB 214 CITOYERESQAY 226

RESULT 9
US-09-031-168-8
Sequence 8, Application US/09031168
Patent No. 6150583
GENERAL INFORMATION:
APPLICANT: Stanley B. Prusiner
APPLICANT: Glenn C. Telling
APPLICANT: Michael R. Scott
TITLE OF INVENTION: TRANSGENIC ANIMALS EXPRESSING
TITLE OF INVENTION: EPITOPE-TAGGED PROTEINS
NUMBER OF SEQUENCES: 13
CORRESPONDENCE ADDRESSES:
ADDRESSEE: Fish & Richardson
STREET: 2200 Sand Hill Road, Suite 100
CITY: Menlo Park
STATE: California
COUNTRY: USA
ZIP: 94025
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: ASCII
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/031,168
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/660,626
FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Valela Gregg

REGISTRATION NUMBER: 35,127
REFERENCE/DOCKET NUMBER: 07532/003001
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 322-5070
TELEFAX: (415) 854-0875
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
LENGTH: 253 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
ORIGINAL SOURCE:
ORGANISM: HUMAN PRION PROTEIN, HuPrP
US-09-031-168-8

Query Match 100.0%; Score 72; DB 4; Length 253;
Best Local Similarity 100.0%; Pred. No. 7.1e-06;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITOYERESQAY 13
DB 214 CITOYERESQAY 226

RESULT 10
US-09-128-450-20
Sequence 20, Application US/09128450
Patent No. 6211149
GENERAL INFORMATION:
APPLICANT: Chesebro, Bruce W
APPLICANT: Caughey, Byron W
APPLICANT: Chabry, Joelle
APPLICANT: Priola, Susette
TITLE OF INVENTION: Inhibitors of Formation of Protease Resistant Prion
FILE REFERENCE: 50121
CURRENT APPLICATION NUMBER: US/09/128,450
CURRENT FILING DATE: 1998-08-03
NUMBER OF SEQ ID NOS: 29
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 20
LENGTH: 253
TYPE: PRP
ORGANISM: Homo sapiens
US-09-128-450-20

Query Match 100.0%; Score 72; DB 4; Length 253;
Best Local Similarity 100.0%; Pred. No. 7.1e-06;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITOYERESQAY 13
DB 214 CITOYERESQAY 226

RESULT 11
US-08-244-701B-48
Sequence 48, Application US/08244701B
Patent No. 5773572
GENERAL INFORMATION:
APPLICANT: Fishleigh, Robert V.
APPLICANT: Robson, Barry
APPLICANT: Mee, Roger P.
TITLE OF INVENTION: Fragments of Prion Proteins
NUMBER OF SEQUENCES: 67
CORRESPONDENCE ADDRESS:
ADDRESSEE: Pennie & Edmonds
STREET: 1155 Avenue of the Americas
CITY: New York
STATE: New York

COUNTRY: U.S.A.
ZIP: 10036
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/244,701B
FILING DATE: 02-JUN-1994
CLASSIFICATION: 436
ATTORNEY/AGENT INFORMATION:
NAME: Panucci, Allan A.
REGISTRATION NUMBER: 30,256
REFERENCE/DOCKET NUMBER: 8080-007
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
TELEFAX: (212) 869-8864/9741
TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO: 48:
SEQUENCE CHARACTERISTICS:
LENGTH: 15 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
US-08-244-701B-48

Query Match 95.8%; Score 69; DB 1; Length 15;
Best Local Similarity 92.3%; Pred. No. 9.7e-07;
Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITOYERESQAY 13
DB 1 CITOYERESQAY 13

RESULT 12
US-08-244-701B-33
Sequence 33, Application US/08244701B
Patent No. 5773572
GENERAL INFORMATION:
APPLICANT: Fishleigh, Robert V.
APPLICANT: Robson, Barry
APPLICANT: Mee, Roger P.
TITLE OF INVENTION: Fragments of Prion Proteins
NUMBER OF SEQUENCES: 67
CORRESPONDENCE ADDRESS:
ADDRESSEE: Pennie & Edmonds
STREET: 1155 Avenue of the Americas
CITY: New York
STATE: New York
COUNTRY: U.S.A.
ZIP: 10036
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/244,701B
FILING DATE: 02-JUN-1994
CLASSIFICATION: 436
ATTORNEY/AGENT INFORMATION:
NAME: Panucci, Allan A.
REGISTRATION NUMBER: 30,256
REFERENCE/DOCKET NUMBER: 8080-007
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
TELEFAX: (212) 869-8864/9741
TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO: 33:

SEQUENCE CHARACTERISTICS:
LENGTH: 22 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
FEATURE:
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LOCATION: 1
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OTHER INFORMATION: /note="X may be absent or present independently"
OTHER INFORMATION: of Y and denotes one or more amino acid(s)"
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NAME/KEY: Modified-site
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OTHER INFORMATION: of X and denotes one or more amino acid(s)"
US-08-244-701B-33

Query Match 95.8%; Score 69; DB 1; Length 22;
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Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITORYESQAY 13
||||:|||||
Db 3 CITORYESQAY 15

RESULT 13
US-08-244-701B-35
Sequence 35, Application US/08244701B
Patent No. 5773572

GENERAL INFORMATION:
APPLICANT: Fishleigh, Robert V.
APPLICANT: Robson, Barry
APPLICANT: Mee, Roger P.
TITLE OF INVENTION: Fragments of Prion Proteins
NUMBER OF SEQUENCES: 67
CORRESPONDENCE ADDRESS:
ADDRESSEE: Pennie & Edmonds
STREET: 1155 Avenue of the Americas
CITY: New York
STATE: New York
COUNTRY: U.S.A.
ZIP: 10036

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/244,701B
FILING DATE: 02-JUN-1994
CLASSIFICATION: 436

ATTORNEY/AGENT INFORMATION:
NAME: Fanucci, Allan A.
REGISTRATION NUMBER: 30,256
REFERENCE/DOCKET NUMBER: 8680-007
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
TELEFAX: (212) 869-8864/9741
TELEX: 66141 PENNIE

INFORMATION FOR SEQ ID NO: 35:
SEQUENCE CHARACTERISTICS:
LENGTH: 22 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
FEATURE:
NAME/KEY: Modified-site

LOCATION: 1
OTHER INFORMATION: /label=X
OTHER INFORMATION: /note="X may be absent or present independently"
OTHER INFORMATION: of Y and denotes one or more amino acid(s)"
FEATURE:
NAME/KEY: Modified-site
LOCATION: 22
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US-08-244-701B-35

Query Match 95.8%; Score 69; DB 1; Length 22;
Best Local Similarity 92.3%; Pred. No. 1.5e-06;
Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITORYESQAY 13
||||:|||||
Db 3 CITORYESQAY 15

RESULT 14
US-08-242-188-4
Sequence 4, Application US/08242188
Patent No. 5565186

GENERAL INFORMATION:
APPLICANT: Prusiner, Stanley B.
APPLICANT: Scott, Michael R.
APPLICANT: Telling, Glenn
TITLE OF INVENTION: METHOD OF DETECTING PRIONS IN A SAMPLE
TITLE OF INVENTION: AND TRANSGENIC ANIMAL USED FOR SAME
NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
ADDRESSEE: Karl Bosicvick
STREET: 2200 Sand Hill Road
CITY: Menlo Park
STATE: CA
COUNTRY: USA
ZIP: 94025

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/242,188
FILING DATE: 13-MAY-1994
CLASSIFICATION: 435

ATTORNEY/AGENT INFORMATION:
NAME: Bosicvick, Karl
REGISTRATION NUMBER: 28,807
REFERENCE/DOCKET NUMBER: 06510/014001
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 854-5277
TELEFAX: (415) 854-0875

INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 255 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
ORIGINAL SOURCE:
ORGANISM: SHEEP PRION PROTEIN, SNPrP
US-08-242-188-4

Query Match 95.8%; Score 69; DB 1; Length 255;
Best Local Similarity 92.3%; Pred. No. 2.5e-05;
Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITORYESQAY 13

DB 216 CITQYQRESQAYY 228

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RESULT 15
US-08-509-261A-4
; Sequence 4, Application US/08509261A
; Patent No. 5763244
; GENERAL INFORMATION:
; APPLICANT: Prusiner, Stanley B.
; APPLICANT: Scott, Michael R.
; APPLICANT: Telling, Glenn
; TITLE OF INVENTION: Method of Detecting Prions
; TITLE OF INVENTION: In a Sample and Transgenic Animal Used fore
; NUMBER OF SEQUENCES: 4
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Bozicevic & Reed, LLP
; STREET: 285 Hamilton Avenue, Suite 200
; CITY: Palo Alto
; STATE: CA
; COUNTRY: USA
; ZIP: 94301
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FASTSEQ for Windows Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/509,261A
; FILING DATE: 31-JUL-1995
; CLASSIFICATION: 800
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Bozicevic, Karl
; REGISTRATION NUMBER: 28,807
; REFERENCE/DOCKET NUMBER: 6510-030001
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 650-327-3400
; TELEFAX: 650 327-3231
; TELEX:
; INFORMATION FOR SEQ ID NO: 4:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 255 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
;
US-08-509-261A-4

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Query Match 95.8%; Score 69; DB 1; Length 255;
Best Local Similarity 92.3%; Pred. No. 2.5e-05;
Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
QY 1 CITQYQRESQAYY 13
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DB 216 CITQYQRESQAYY 228

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GenCore version 4.5
Copyright (c) 1993 - 2000 CompuGen Ltd.

OM protein - protein search, using sw model

Run on: October 25, 2001, 08:51:31 ; Search time 32.8 Seconds
(without alignments)
24.028 Million cell updates/sec

Title: US-09-576-724-2

Perfect score: 72
Sequence: 1 CITOYQRESQAVY 13

Scoring table:

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Gapop 10.0 , Gapext 0.5

Searched: 412676 seqs, 60623988 residues

Total number of hits satisfying chosen parameters: 412676

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Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%

Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	72	100.0	15	AA838048	Prion protein regl
2	72	100.0	17	AA869083	Bovine prion prote
3	72	100.0	22	AA838042	Bovine prion prote
4	72	100.0	22	AA838044	Ovine prion protei
5	72	100.0	26	AA869085	Prion protein pept
6	72	100.0	217	AA807317	Cattle prion prote
7	72	100.0	217	AA807328	Cattle prion prote
8	72	100.0	219	AA870261	Bovine prion prote
9	72	100.0	219	AA893571	Bovine rBP pr prote
10	72	100.0	255	AA86717	Sheep prion protei
11	72	100.0	255	AA869662	Sheep prion protei

12	72	100.0	255	20	AA85903	Sheep prion prote
13	72	100.0	256	10	AA893674	Sheep rBP gene i
14	72	100.0	256	22	AA872362	Sheep prion protei
15	72	100.0	256	22	AA872363	Antelope prion, pr
16	72	100.0	256	22	AA872365	Goat prion protei
17	72	100.0	256	22	AA861771	Sheep prion protei
18	72	100.0	264	20	AA807995	Bovine prion prote
19	72	100.0	264	22	AA872361	Cow prion protei
20	72	100.0	264	22	AA861769	Bovine prion prote
21	69	95.8	22	14	AA838046	Bovine prion prote
22	69	95.8	142	18	AA817686	Prion protein pept
23	69	95.8	208	21	AA807318	Human prion protei
24	69	95.8	208	21	AA807329	Human prion protei
25	69	95.8	253	17	AA886715	Human prion protei
26	69	95.8	253	19	AA869660	Human prion protei
27	69	95.8	253	20	AA807994	Human prion protei
28	69	95.8	253	20	AA85901	Human prion protei
29	69	95.8	253	21	AA806272	Human prion protei
30	69	95.8	253	21	AA815035	Human prion protei
31	69	95.8	253	21	AA81485	Human prion protei
32	69	95.8	253	22	AA872338	Human prion protei
33	69	95.8	253	22	AA872339	Chimpanzee prion p
34	69	95.8	253	22	AA872340	Orangutan prion p
35	69	95.8	253	22	AA872341	Gorilla prion prote
36	69	95.8	253	22	AA872345	Gibbon prion prote
37	69	95.8	253	22	AA872354	Capuchin prion pro
38	69	95.8	253	22	AA872356	Stamang prion prot
39	69	95.8	253	22	AA861770	Human prion protei
40	69	95.8	264	22	AA872364	Kudu prion protei
41	68	94.4	31	20	AA892806	Mouse PrP protein
42	68	94.4	208	21	AA807316	Mouse prion protei
43	68	94.4	208	21	AA807327	Mouse prion protei
44	68	94.4	211	22	AA830801	Amino acid sequenc
45	68	94.4	254	17	AA86714	Mouse prion protei

ALIGNMENTS

RESULT 1	
AA838048	AA838048 standard; protein; 15 AA.
ID	
AA838048;	
AC	
XX	
DT	14-OCT-1993 (first entry)
XX	
DE	Prion protein region F #2.
XX	
KW	Antigen; prion; protein; region; frame shift; repeat; mutation; PrPc;
KW	Fsa; subfragment; antibody; treatment; spongiform encephalopathy;
KW	human; sheep; cattle; cellular binding; aggregation; mammal; scrapie;
KW	immune system; PrPsc; ratio-inverso peptide; enzymatic degradation;
XX	
OS	Synthetic.
XX	
PN	MO9311155-A.
XX	
PD	10-JUN-1993.
XX	
PF	03-DEC-1992; 92WO-G802246.
XX	
PR	03-DEC-1991; 91GB-0025747.
XX	
PR	10-JUL-1992; 92GB-0014663.
XX	
PA	(PROT-) PROTEUS MOLECULAR DESIGN LTD.
XX	
PI	Fishleigh RV, Mee RP, Robson B;
XX	
DR	WPI; 1993-196994/24.
XX	
PT	New polypeptide(s) contg. antigenic site of prion protein -

PT useful for treatment and diagnosis of mammalian encephalopathies
PT e.g. Creutzfeldt-Jacob disease and kuru
XX
PS Claim 29; Page 74; 82pp; English.
XX
XX The sequences given in AAR38041-48 represent polypeptides which are
CC derived from an antigenic site, region F, of a prion protein. Prion
CC proteins comprise six regions of interest (A-F), and two related frame
CC shift peptides sequences caused by a repeating section in region E
CC having a nucleic acid coding sequence frame shift mutation of +1 (Fsa)
CC or -1 (Fsb). These peptides (see also AAR38041-48) and antibodies
CC raised against these may be used to treat or prevent spongiform
CC encephalopathy in humans, sheep or cattle. They can be used to block
CC cellular binding and aggregation of prion proteins and to stimulate the
CC mammalian immune system. These peptides may be used to distinguish
CC between the normal form of prion protein (PrPc) and the
CC scrapie-associated form (PrPsc). These peptides may include rare or
CC synthetic amino acids or a ratio- inverse peptide modification to improve
CC resistance to enzymatic degradation.
XX
XX Sequence 15 AA;
XX

Query Match	100.0%	Score 72:	DB 14:	Length 15:
Best Local Similarity	100.0%	Pred. No. 8	2e-07:	
Matches 13:	Conservative 0:	Mismatches 0:	Indels 0:	Gaps 0:
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Db	1	ctgtgqresqay	13	

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ID	AAB69083 standard; peptide; 17 AA.
XX	
AC	AAB69083;
XX	
DT	23-APR-2001 (first entry)
XX	
DE	Bovine prion protein peptide SEQ ID NO:3.
XX	
KM	Monoclonal antibody; detection; prion protein; TSE; infection;
KW	transmissible spongiform encephalopathy; scrapie; bovine encephalopathyy
KX	chronic wasting disease; PrP-Sc.
OS	Bos taurus.
XX	
PN	M0200105426-A1.
XX	
PD	25-JAN-2001.
XX	
PF	14-JUL-2000; 2000MO-US19211.
XX	
PR	15-JUL-1999; 99US-0353348.
XX	
PA	(USDA) US DEPT OF AGRICULTURE.
PI	O'Rourke KI;
XX	
DR	WPI; 2001-159477/16.
XX	
PT	Monoclonal antibodies for detecting prior proteins as an indication of
PT	transmissible spongiform encephalopathes, specifically binds to
PS	conserved group of prior proteins -
XX	
PS	Example 2; Page 12; 25pp; English.
CC	The present invention describes a monoclonal antibody (I) which
CC	specifically binds to a conserved epitope of prion proteins, which is
CC	capable of binding prion protein (PrP)-Sc protein in fixed or unfixed
CC	tissue that has been treated to unmask the group of PrP-Sc protein and
CC	eliminate availability of a corresponding group of PrP-Cellular. (I) can

be used in immunoassays to detect PrP-Sc proteins in animal or human, including ruminant livestock, cats, mink and non-human primates: sheep, goat, cattle, mule deer and elk, as an indication of the presence of transmissible spongiform encephalopathies (TSE). Presence of PrP-Sc indicates the scrapie-, bovine encephalopathy- or chronic wasting disease-infected animals. The antibodies provide early detection of PrP-Sc and for preclinical diagnosis of TSE. The present sequence CC represents a prion protein peptide which is used in an example from the present invention.

	Query Match	100.0%;	Score 72;	DB 22;	Length 17;
	Best Local Similarity	100.0%;	Pred. No. 9,4e-07;		
	Matches 13; Conservative	0;	Mismatches 0;	Indels 0;	Gaps 0;
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Dd	1 citqyresdayy	13			

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RESULT      3
AAR38042
ID  AAR38042 standard; protein; 22 AA
vv

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AC AAR38042;

DT 14-OCT-1993 (first entry)

DE Bovine prion protein region F #2.

KW Antigen; p10n; protein; region; frame shift; repeat; mutation; PrPc;
 KW F5s; F5b; subfragment; antibody; treatment; Spongiform encephalopathy;
 KW human; sheep; cattle; cellular binding; aggregation; mammal; scrapie;
 KW immune system; PrPsc; ratio-inverso peptide; enzymatic degradation;
 KW resistance.

OS Synthetic.

FH	Key	Location/Qualifiers
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2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
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99	99	99
100	100	100

/note= "One or more residues or may be absent"

	/note= "May be absent"
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FT	/note= "May be absent"
FT	
Misc-difference 5	

FT	F ₁ T	/note= "May be absent"
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ET	Misc-difference	19	/note= "May be absent"

E1	/note=	"may be absent"
ET	Misc-difference	20

FT	Misc-difference	/note-	may be absent
21			

FT	1	/note-	may be absent
FT	22	Misc-difference	

AT 21011 TO 21015 - 21011 /

XX 17

[illegible]

XX

XX

PR 10-JUL-1992;

PA (PROT-) PROTEUS MOLECULAR DESIGN LTD.

PI Fishleigh RV, Mee RP, Robson B;
 XX WPI; 1993-196994/24.
 XX
 PT New polypeptide(s) contg. antigenic site of prion protein -
 PT useful for treatment and diagnosis of mammalian encephalopathies
 PT e.g. Creutzfeld-Jacob disease and kuru
 XX
 PS Claim 28; Page 74; 82pp; English.
 XX
 CC The sequences given in AAR38041-48 represent polypeptides which are
 CC derived from an antigenic site, region F, of a prion protein. Prion
 CC proteins comprise six regions of interest (A-F), and two related frame
 CC shift peptides sequences caused by a repeating section in region E
 CC having a nucleic acid coding sequence frame shift mutation of +1 (Fsa)
 CC or -1 (Fsb). These peptides (see also AAR38041-48) and antibodies
 CC raised against these may be used to treat or prevent spongiform
 CC encephalopathy in humans, sheep or cattle. They can be used to block
 CC cellular binding and aggregation of prion proteins and to stimulate the
 CC mammalian immune system. These peptides may be used to distinguish
 CC between the normal form of prion protein (PrPc) and the
 CC scrapie-associated form (PrPsc). These peptides may include rare or
 CC synthetic amino acids or a ratio- Inverso peptide modification to improve
 CC resistance to enzymatic degradation.
 CC
 XX Sequence 22 AA;
 SQ
 Query Match 100.0%; Score 72; DB 14; Length 22;
 Best Local Similarity 100.0%; Pred. No. 1.2e-06;
 Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 OY 1 CITORYRESQAVY 13
 Db ||||||||||| 15
 3 citqyqresgayy 15
 Db
 RESULT 4
 AAR38044
 ID AAR38044 standard; protein: 22 AA.
 XX
 AC AAR38044;
 XX
 DT 14-OCT-1993 (first entry)
 XX
 DE Ovine prion protein region F #2.
 XX
 KW Antigen; prion; protein; region; frame shift; repeat; mutation; PrPc;
 KW Fsa; Fsb; subfragment; antibody; treatment; spongiform encephalopathy;
 KW human; sheep; cattle; cellular binding; aggregation; mammal; scrapie;
 KW immune system; PrPsc; ratio-inverso peptide; enzymatic degradation;
 KW resistance.
 XX
 OS Synthetic.
 XX
 FH Key Location/Qualifiers
 FT MISC-difference 1 /note= "One or more residues or may be absent"
 FT MISC-difference 2 /note= "May be absent"
 FT MISC-difference 3 /note= "May be absent"
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 PD 10-JUN-1993.
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 PE 03-DEC-1992; 92MO-GB02246.
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 PR 03-DEC-1991; 91GB-0025747.
 PR 10-JUL-1992; 92GB-0014663.
 XX
 PA (PROT-) PROTEUS MOLECULAR DESIGN LTD.
 XX
 PI Fishleigh RV, Mee RP, Robson B;
 XX
 DR WPI; 1993-196994/24.
 XX
 PT New polypeptide(s) contg. antigenic site of prion protein -
 PT useful for treatment and diagnosis of mammalian encephalopathies
 PT e.g. Creutzfeld-Jacob disease and kuru
 XX
 PS Claim 28; Page 74; 82pp; English.
 XX
 CC The sequences given in AAR38041-48 represent polypeptides which are
 CC derived from an antigenic site, region F, of a prion protein. Prion
 CC proteins comprise six regions of interest (A-F), and two related frame
 CC shift peptides sequences caused by a repeating section in region E
 CC having a nucleic acid coding sequence frame shift mutation of +1 (Fsa)
 CC or -1 (Fsb). These peptides (see also AAR38041-48) and antibodies
 CC raised against these may be used to treat or prevent spongiform
 CC encephalopathy in humans, sheep or cattle. They can be used to block
 CC cellular binding and aggregation of prion proteins and to stimulate the
 CC mammalian immune system. These peptides may be used to distinguish
 CC between the normal form of prion protein (PrPc) and the
 CC scrapie-associated form (PrPsc). These peptides may include rare or
 CC synthetic amino acids or a ratio- Inverso peptide modification to improve
 CC resistance to enzymatic degradation.
 CC
 XX Sequence 22 AA;
 SQ
 Query Match 100.0%; Score 72; DB 14; Length 22;
 Best Local Similarity 100.0%; Pred. No. 1.2e-06;
 Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 OY 1 CITORYRESQAVY 13
 Db ||||||||||| 15
 3 citqyqresgayy 15
 Db
 RESULT 5
 AAB69085
 ID AAB69085 standard; peptide: 26 AA.
 XX
 AC AAB69085;
 XX
 DT 23-APR-2001 (first entry)
 XX
 DE Prion protein peptide SEQ ID NO:7.
 XX
 KW Monoclonal antibody; detection; prion protein; TSF; infection;
 KW transmissible spongiform encephalopathy; scrapie; bovine encephalopathy;
 KW chronic wasting disease; PrP-Sc.
 XX
 OS Ovis aries.
 OS
 PN W0200105426-A1.
 XX
 PD 25-JAN-2001.
 XX
 PF 14-JUL-2000; 2000WO-US19211.

```

PR      15-JUL-1999;      99US-0353348.
XX
XX      (USDA ) US DEPT OF AGRICULTURE.
XX
XX      O'Rourke KI;
DR      WPI; 2001-159477/16.
XX
XX      Monoclonal antibodies for detecting prior proteins as an indication of
PT      transmissible spongiform encephalopathies, specifically binds to
PT      conserved group of prior proteins -
XX
XX      Example 2; Page 13; 25pp; English.
XX
XX      The present invention describes a monoclonal antibody (I) which
CC      specifically binds to a conserved epitope of prion proteins, which is
CC      capable of binding prion protein (PrP)-Sc protein in fixed or unfixed
CC      tissue that has been treated to unmask the group to PrP-Sc protein and
CC      eliminate availability of a corresponding group of PrP-Cellular. (I) can
CC      be used in immunoassays to detect PrP-Sc proteins in animal or human,
CC      including ruminant livestock, cats, mink and non-human primates; sheep,
CC      goat, cattle, mule deer and elk, as an indication of the presence of
CC      transmissible spongiform encephalopathies (TSE). Presence of PrP-Sc
CC      indicates the scrapie-, bovine encephalopathy- or chronic wasting
CC      disease-infected animals. The antibodies provide early detection of
CC      PrP-Sc and for preclinical diagnosis of TSE. The present sequence
CC      represents a prion protein peptide which is used in an example from
CC      the present invention.
XX
XX      Sequence      26 AA;
SQ
XX
XX      Query Match      100.0%; Score 72; DB 22; Length 26;
XX      Best Local Similarity      100.0%; Pred. No. 1.5e-06;
XX      Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
OY      1 CITORYRESQAY 13
XX      |||||||||||||
DB      5 cItgyqresqay 17
XX
XX      RESULT 6
XX      AAB07317
XX      ID AAB07317 standard; protein; 217 AA.
XX
XX      AAB07317;
XX      DT 17-OCT-2000 (first entry)
XX
XX      DE Cattle prion protein sequence.
XX
XX      KW Cattle; prion protein; transmissible spongiform encephalopathy;
XX      bovine spongiform encephalopathy; BSE diagnosis; TSE; PrP.
XX
XX      OS Bos bovis.
XX
XX      FH Key
XX      FT Region
XX      FT
XX      FT Disulfide-bond
XX      FT Modified-site
XX      FT
XX      FT /note="C-terminal phospho-inositol glycolipid
XX      FN membrane anchor (-GPI)"
XX      PD
XX      PD 25-MAY-2000.
XX      PD
XX      PD 27-OCT-1999; 99WO-FI00897.
XX      PD
XX      PD 17-NOV-1998; 98FT-0002481.
XX

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xx	(WALL-) WALLAC OY.
PA	(BBSR-) BBSRC OFFICE.
XX	
PI	Hope J, Barnard GJR, Birkett CR;
XX	
DR	WPI; 2000-387880/33.
XX	
PT	Novel immunoassay for prion protein, used for the determination of
PT	transmissible spongiform encephalopathies in bovines
XX	
PS	Disclosure; Page 42-43; 50pp; English.
CC	
CC	The present sequence is the cattle prion protein (PrP) sequence.
CC	Conversion of the normal cellular form of PrP into an aggregated,
CC	insoluble isoform is implicated in the pathogenesis of Transmissible
CC	Spongiform Encephalopathies (TSEs). Examples of TSEs include Bovine
CC	Spongiform Encephalopathy (BSE), scrapie, Creutzfeldt-Jakob disease
CC	(CJD) and Gerstmann-Strausler-Sheinker syndrome (GSS). The concentration
CC	of this protein in body fluid or tissue samples may be measured by an
CC	assay of the present invention, in which a PrP epitope is captured by an
CC	antibody, which is then detected. The presence of PrP indicates BSE. PrP
CC	epitopes (AAB07320-B07326) are derived from the protease resistant core
CC	of PrP that is occluded when the PrP is in an aggregated state.
XX	
SO	Sequence 217 AA;
Query Match	100.0%; Score 72; DB 21; Length 217;
Best Local Similarity	100.0%; Pred. No. 1.5e+05;
Matches 13; Conservative	0; Mismatches 0; Indels 0; Gaps 0
OY	1 CITOYQRESQAVY 13
Db	201 citgygresgayy 213
RESULT 7	
AAB07328	
ID	AAB07328 standard; protein; 217 AA.
XX	
AC	AAB07328;
XX	
DT	17-OCT-2000 (first entry)
XX	
DE	Cattle prion protein sequence.
XX	
KW	Cattle; prion protein; transmissible spongiform encephalopathy;
KW	bovine spongiform encephalopathy; TSE diagnosis; PrP.
XX	
OS	Bos bovis.
XX	
Key	Location/Qualifiers
FH	37..79
FT	/note= "Repeat region consisting of tandem repeats
FT	of repeat unit: PHGGGWGQ (AAB07319)"
FT	Disulfide bond 166..201
FT	Modified-site 217
FT	/note= "C-terminal phospho-inositol glycolipid
FT	membrane anchor (-GPI)"
XX	
PN	WO200029849-A1.
XX	
PD	25-MAY-2000.
XX	
PF	27-OCT-1999; 99WO-FI00896.
XX	
PR	17-NOV-1998; 98FI-0002480.
XX	
PA	(WALL-) WALLAC OY.
PA	(BBSR-) BBSRC OFFICE.
PI	Hope J, Barnard GJR, Birkett CR;

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XX DR WPI; 2000-399778/34.
XX
XX PT New immunoassay for prion protein, used for determination of
PT transmissible spongiform encephalopathies in mammals, comprises
XX specific capture antibody.
XX PS Disclosure; Page 42-43; 50pp; English.
XX
CC The present sequence is the cattle prion protein (PrP) sequence.
CC Conversion of the normal cellular form of PrP into an aggregated,
CC insoluble isoform is implicated in the pathogenesis of Transmissible
CC Spongiform Encephalopathies (TSEs). Examples of TSEs include Bovine
CC Spongiform Encephalopathy (BSE), scrapie, Creutzfeldt-Jacob disease
CC (CJD) and Gerstmann-Strausler-Sheinker syndrome (GSS). The concentration
CC of this protein in body fluid or tissue samples may be measured by an
CC assay of the present invention, in which a PrP epitope is captured by an
CC antibody, which is then detected. The presence of PrP indicates TSE. PrP
CC epitopes (AAH07320-B07326) are derived from the protease resistant core
CC of PrP that is occluded when the PrP is in an aggregated state.
XX
SQ Sequence 217 AA;

Query Match 100.0%; Score 72; DB 21; Length 217;
Best Local Similarity 100.0%; Pred. No. 1.5e-05;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CITQYQRESQAY 13
   |||||
DB 201 citqyqresqay 213

RESULT 8
AAW70261
ID AAW70261 standard; Protein; 219 AA.
XX
XX AC AAW70261;
XX
XX DT 13-NOV-1998 (first entry)
XX
XX DE Bovine prion protein.
XX
XX KM Prion protein; PrP; cow; disease-specific prion protein; scrapie; Kuru;
XX prion disease detection; bovine spongiform encephalopathy; therapy;
XX Creutzfeldt-Jacob disease; Gerstmann-Strausler-Scheinker syndrome;
XX Fatal Familial Insomnia.
XX
XX OS Bos taurus.
XX
XX PN EP861900-A1.
XX
XX PD 02-SEP-1998.
XX
XX PF 21-FEB-1997; 97EP-0102837.
XX
XX PR 21-FEB-1997; 97EP-0102837.
XX
XX PA (ERZT-) ERZIEHUNGSDIREKTION CANTON ZURICH.
XX
XX PI Korth C, Moser M, Oesch B, Stierli B, Streilt P;
XX
XX DR WPI; 1998-449112/39.
XX
XX DR N-PSDB; AAV33005.
XX
XX PT New monoclonal antibodies specifically bind to disease-specific
XX prion proteins - used to diagnose, prevent and treat prion diseases
XX e.g. bovine spongiform encephalopathy, scrapie and
XX Creutzfeldt-Jacob disease
XX
XX PS Disclosure; Page 20-21; 35pp; English.
XX
XX CC This sequence represents the bovine prion protein (PrP). The protein

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CC is targeted by the antibody of the invention, which is a monoclonal
CC antibody or fragment capable of specifically binding to native and
CC denatured normal (PrPc) and disease-specific prion protein (PrPsc) in an
CC antigen-antibody complex. The antibodies that immunoreact with
CC disease-specific prion proteins are used in test kits for the diagnosis
CC of prion diseases and to detect disease-specific PrP in biological
CC material by treatment of a probe of the material with proteinase K and
CC then with the monoclonal antibody. The monoclonal antibodies are used for
CC the prevention and treatment of prion diseases and to clear biological
CC material from prions. The antibodies are used to diagnose, treat, and
CC prevent e.g. bovine spongiform encephalopathy, scrapie in sheep and
CC Creutzfeldt-Jacob disease, Gerstmann-Strausler-Scheinker syndrome, Fatal
CC Familial Insomnia and Kuru in humans. The diagnostic method allows mass
CC screening of infected cattle tissue at a subclinical stage and reduces
CC possible human health risks.
XX
SQ Sequence 219 AA;

Query Match 100.0%; Score 72; DB 19; Length 219;
Best Local Similarity 100.0%; Pred. No. 1.5e-05;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CITQYQRESQAY 13
   |||||
DB 202 citqyqresqay 214

RESULT 9
AAW93571
ID AAW93571 standard; Protein; 219 AA.
XX
XX AC AAW93571;
XX
XX DT 17-JUN-1999 (first entry)
XX
XX DE Bovine rPrP protein.
XX
XX KM Prion protein; PrP; rPrP; disease specific isoform; PrP(Sc); vaccine;
XX treatment; diagnosis; Scrapie; BSE; Kuru; Creutzfeldt-Jacob disease;
XX detection.
XX
XX OS Bos taurus.
XX
XX PN DE19741607-A1.
XX
XX PD 25-MAR-1999.
XX
XX PF 20-SEP-1997; 97DE-1041607.
XX
XX PR 20-SEP-1997; 97DE-1041607.
XX
XX PA (PRIO-) PRIONICS AG.
XX
XX PI Korth C, Moser M, Oesch B;
XX
XX DR WPI; 1999-205964/18.
XX
XX PT New polypeptides comprising prion protein sequences - useful for
XX diagnosis or treatment of prion diseases e.g. Scrapie, BSE and
XX Creutzfeldt-Jacob disease
XX
XX PS Claim 13; Page 6-7; 12pp; German.
XX
XX CC This invention describes a synthetic polypeptide comprising at least one
XX "defined" PrP (prion protein) sequence or sequences derived therefrom
XX that are recognised by a disease specific isoform of PrP, e.g. PrP(Sc),
XX binding substances. The new prion protein polypeptides are useful in
XX vaccines and pharmaceuticals for treatment of, and as diagnostic agents
XX for diagnosis of Scrapie, BSE, Kuru and Creutzfeldt-Jacob disease. The
XX polypeptides are also useful in pharmaceutical or chemical libraries for
XX detection of PrP(Sc)-specific agents.

```

SQ Sequence 219 AA;

Query Match 100.0%; Score 72; DB 20; Length 219;
 Best Local Similarity 100.0%; Pred. No. 1.5e-05;
 Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITORYORESQAYY 13
 |||||
 Db 202 citqygresqayy 214

RESULT 10

ID AAR86717 standard; protein; 255 AA.

XX AAR86717;

XX 15-OCT-1996 (first entry)

XX Sheep prion protein, HuPrP.

XX Chimeric gene; chimeric prion; transgenic animal; diagnosis;

XX spongiform encephalopathy; PrP; central nervous system; CNS;

XX Creutzfeldt-Jakob disease; CJD; BSE.

XX Ovis aries.

XX WO9531466-A1.

XX 23-NOV-1995.

XX 10-APR-1995; 95WO-US04426.

XX 13-MAY-1994; 94US-0242188.

XX (REGC) UNIV CALIFORNIA.

XX Prusiner SB, Scott MR, Telling G;

XX WPI; 1996-010868/01.

XX Chimeric prion protein gene - for formation of a transgenic animal

XX susceptible to prion infection by prion(s) normally specific for a

XX different species

XX disclosure; Page 43-44; 65pp; English.

XX pathogenic prions in a sample can be detected by injecting the

XX sample to be tested into a transgenic mouse. The mouse genome

XX includes a chimeric PrP gene in which the gene includes a portion of

XX a gene of the animal (e.g. sheep) in danger of infection from prions

XX in the sample. Preferred transgenic mice express a chimeric prion

XX protein (PrP) in which a segment of the mouse PrP, MoPrP, is

XX replaced with the corresponding sheep PrP sequence.

SQ Sequence 255 AA;

Query Match 100.0%; Score 72; DB 17; Length 255;
 Best Local Similarity 100.0%; Pred. No. 1.8e-05;
 Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITORYORESQAYY 13
 |||||
 Db 216 citqygresqayy 228

RESULT 11

AAW69662

ID AAW69662 standard; protein; 255 AA.

XX AAW69662;

XX 19-OCT-1998 (first entry)

XX Sheep prion protein BoPrP.

XX Sheep; prion protein; PrP; transgenic animal; artificial gene;

XX Creutzfeldt Jakob disease; CJD; neurodegenerative disease; human.

XX Ovis sp.

XX US5792901-A.

XX 11-AUG-1998.

XX 30-JUN-1996; 96US-0692892.

XX 30-JUL-1996; 96US-0692892.

XX 13-MAY-1994; 94US-0242188.

XX 31-JUL-1995; 95US-0509261.

XX 31-AUG-1995; 95US-0521992.

XX (REGC) UNIV CALIFORNIA.

XX Prusiner SB, Scott MR, Telling GC;

XX WPI; 1998-456207/39.

XX Transgenic mouse with altered PrP gene - for detecting

XX disease-causing prions

XX Example 8; Fig 5; 37pp; English.

XX A transgenic mouse has been developed which comprises a genome in which

XX both alleles of an endogenous PrP (prion protein) gene of the mouse are

XX ablated, the genome containing operatively inserted all exogenous

XX non-mouse PrP gene. The mouse is susceptible to infection with prions

XX which generally only infect a genetically diverse mammal due to the

XX presence of the exogenous PrP gene and ablated endogenous PrP gene. It

XX exhibits symptoms of prion disease within 200 days or less after

XX inoculation with prions which generally only infect a genetically

XX diverse mammal. Also described in the present invention are: (A) a

XX method of producing the transgenic mouse; and (B) determining the

XX presence of infectious prions in a sample obtained from a bovine. The

XX transgenic mouse is used to detect for Creutzfeldt Jakob disease (CJD)

XX a fatal neurodegenerative disease of humans caused by prions. The

XX present sequence represents sheep prion protein (ShPrP), from the

XX present invention.

SQ Sequence 255 AA;

Query Match 100.0%; Score 72; DB 19; Length 255;
 Best Local Similarity 100.0%; Pred. No. 1.8e-05;
 Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITORYORESQAYY 13
 |||||
 Db 216 citqygresqayy 228

RESULT 12

AAW85903

ID AAW85903 standard; peptide; 255 AA.

XX AAW85903;

XX 12-FEB-1999 (first entry)

XX Sheep prion protein (PrP) sequence.

XX PrP; PrP(Sc); scrapie; isoform; antibody; prion; CJD; screening;

XX Creutzfeldt-Jakob disease; infectivity; assay; pharmaceutical; food;

XX cosmetic; therapeutic; sheep.

CC protein PrPc located around a disulphide bond found in PrPc. The stable
CC structure is a specific marker of PrPc but not soluble prion protein
CC (PrPsc). The PrPc peptide sequences can be used to generate an antibody
CC or binding agent that binds PrPc. The antibody is used to detect or
CC remove PrPc, and may be used in preventative medicine. The antibody may
CC be used in the prevention, treatment or diagnosis of a prion disease,
CC e.g. spongiform encephalopathies, such as scrapie in sheep, bovine
CC spongiform encephalopathies (BSE) in cows, and Creutzfeldt-Jakob disease
CC (CJD) in humans. The present sequence represents the cellular form of
CC sheep prion protein, the stable region of the protein may be used
CC in the production of anti-PrPc antibodies.

SQ Sequence 256 AA;

Query Match 100.0%; Score 72; DB 22; Length 256;
Best Local Similarity 100.0%; Pred. No. 1.8e-05;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITORYRESQAY 13
|||||
Db 217 citqyqresqay 229

RESULT 15

AAB72363
ID AAB72363 standard; Peptide; 256 AA.

AC AAB72363;

DT 17-MAY-2001 (first entry)

DE Antelope prion protein cellular form (PrPc) amino acid sequence.

KW Prion protein; cellular form; PrPc; stable region; antibody; BSE; CJD;
KM prion disease; spongiform encephalopathies; scrapie; antelope;
KM bovine spongiform encephalopathy; BSE; Creutzfeldt-Jakob disease.

OS Artiodactyla.

PH Key Location/Qualifiers
FT Region 176..221
FT- /note="Stable region, specifically claimed in claim 3"

PN WO200107479-A2.

PD 01-FEB-2001.

PF 25-JUL-2000; 2000WO-GB02873.

PR 27-JUL-1999; 99GB-0017491.

PR 30-JUL-1999; 99GB-0017878.

PA (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD.

PI Collinge J, Clarke AR, Waltho JP, Jackson GS, Hosszu LLP;

DR WPI; 2001-168538/17.

PT New prion peptide for treating, preventing and/or diagnosing prion
PT diseases e.g. scrapie in sheep, bovine spongiform encephalopathies in
PT cows and Creutzfeldt-Jakob disease in humans

PS Claim 3: Fig 5; 69pp; English.

CC This invention relates to a peptide fragment of a cellular form of prion
CC protein PrPc located around a disulphide bond found in PrPc. The stable
CC structure is a specific marker of PrPc but not soluble prion protein
CC (PrPsc). The PrPc peptide sequences can be used to generate an antibody
CC or binding agent that binds PrPc. The antibody is used to detect or
CC remove PrPc, and may be used in preventative medicine. The antibody may
CC be used in the prevention, treatment or diagnosis of a prion disease,
CC e.g. spongiform encephalopathies, such as scrapie in sheep, bovine

CC spongiform encephalopathies (BSE) in cows, and Creutzfeldt-Jakob disease
CC (CJD) in humans. The present sequence represents the cellular form of
CC antelope prion protein, the stable region of the protein may be used
CC in the production of anti-PrPc antibodies.

SQ Sequence 256 AA;

Query Match 100.0%; Score 72; DB 22; Length 256;
Best Local Similarity 100.0%; Pred. No. 1.8e-05;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 CITORYRESQAY 13
|||||
Db 217 citqyqresqay 229

Search completed: October 25, 2001, 08:51:32
Job time: 310 sec